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10

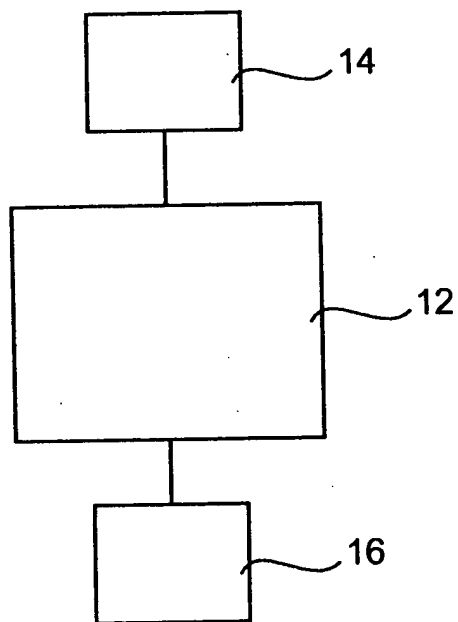


Fig. 2

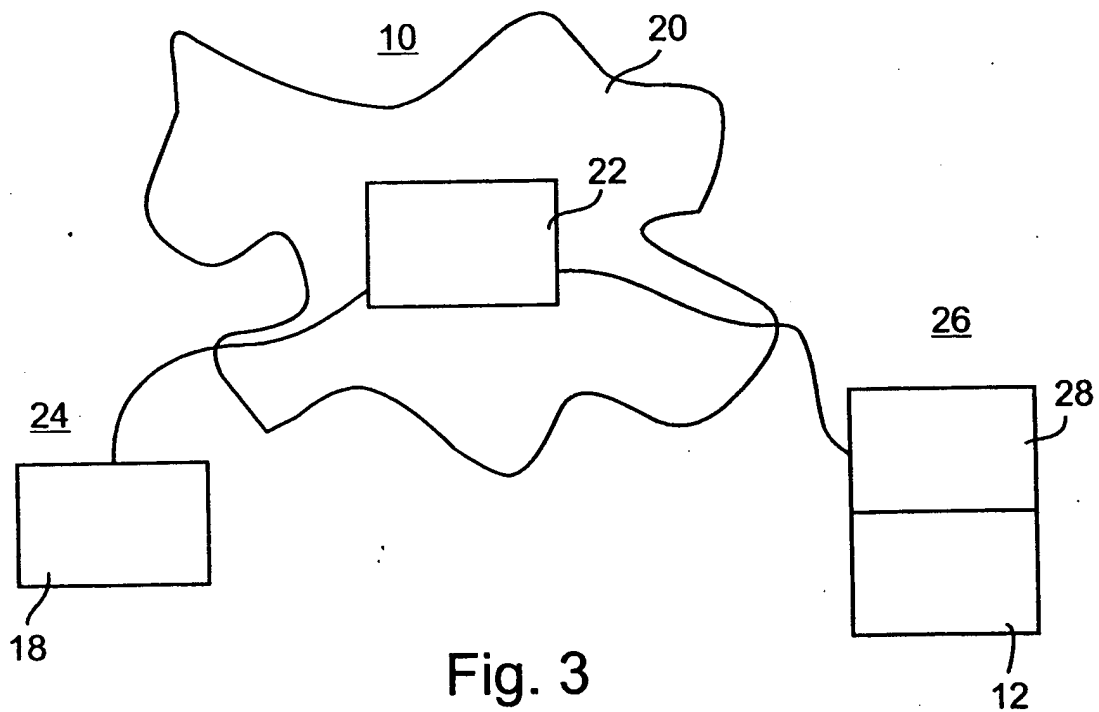


Fig. 3

Fig. 4a

3/48

```
570_0 AV705532_0 190 Z44352_15 783 OL: 52
Query: 1 ggaccaggatattgagcggaaaacactttctctacttagatacaactttttc 52
      |||
Sbjct: 52 ggaccaggatattgagcggaaaacactttctctacttagatacaactttttc 1
```

Fig. 4b

```
570_1 AV705532_0 190 Z44352_14 1649 OL: 52
Query: 1 ggaccaggatattgagcggaaaacactttctctacttagatacaactttttc 52
      |||
Sbjct: 52 ggaccaggatattgagcggaaaacactttctctacttagatacaactttttc 1
```

Fig. 4c

```
570_2 AV705532_0 190 Z44352_13 1861 OL: 52
Query: 1 ggaccaggatattgagcggaaaacactttctctacttagatacaactttttc 52
      |||
Sbjct: 52 ggaccaggatattgagcggaaaacactttctctacttagatacaactttttc 1
```

Fig. 4d

```
571_0 AW070860_0 214 T81142_7 1934 OL: 54
Query: 1 gtaagggaactttggcgacttagtgcgatcactgggagaattgtagagtccact 54
      |||
Sbjct: 1215 gtaagggaactttggcgacttagtgcgatcactgggagaattgtagagtccact 1162
```

Score = 22.3 bits (11), Expect = 0.66
Identities = 11/11 (100%)
Strand = Plus / Minus

```
Query: 146 acttccagagg 156
      |||
Sbjct: 760 acttccagagg 750
```

Fig. 4e

```
571_1 AW070860_0 214 T81142_6 2353 OL: 54
Query: 1 gtaagggaactttggcgacttagtgcgatcactgggagaattgtagagtccact 54
      |||
Sbjct: 1215 gtaagggaactttggcgacttagtgcgatcactgggagaattgtagagtccact 1162
```

Score = 22.3 bits (11), Expect = 0.66
Identities = 11/11 (100%)
Strand = Plus / Minus

```
Query: 146 acttccagagg 156
      |||
Sbjct: 760 acttccagagg 750
```

4/48

Score = 22.3 bits (11), Expect = 0.66
Identities = 11/11 (100%)
Strand = Plus / Plus

Query: 100 ggaaaacacac 110
 |||||
Sbjct: 1900 ggaaaacacac 1910

Fig. 4f

571_2 AW070860_0 214 T81142_4 2500 OL: 54
Query: 1 gtaagggaaactttggcgacttagtgcgatcactgggagaattgtagagtccact 54
 |||||
Sbjct: 1317 gtaagggaaactttggcgacttagtgcgatcactgggagaattgtagagtccact 1264

Score = 22.3 bits (11), Expect = 0.66
Identities = 11/11 (100%)
Strand = Plus / Minus

Query: 146 acttccagagg 156
 |||||
Sbjct: 862 acttccagagg 852

Score = 22.3 bits (11), Expect = 0.66
Identities = 11/11 (100%)
Strand = Plus / Plus

Query: 100 ggaaaacacac 110
 |||||
Sbjct: 2847 ggaaaacacac 2857

Fig. 4g

571_3 AW070860_0 214 T81142_3 947 OL: 54
Query: 1 gtaagggaaactttggcgacttagtgcgatcactgggagaattgtagagtccact 54
 |||||
Sbjct: 224 gtaagggaaactttggcgacttagtgcgatcactgggagaattgtagagtccact 171

Fig. 4h

571_4 AW070860_0 214 T81142_2 1366 OL: 54
Query: 1 gtaagggaaactttggcgacttagtgcgatcactgggagaattgtagagtccact 54
 |||||
Sbjct: 224 gtaagggaaactttggcgacttagtgcgatcactgggagaattgtagagtccact 171

Score = 22.3 bits (11), Expect = 0.66

5/48

Identities = 11/11 (100%)
Strand = Plus / Plus

Query: 100 ggaaaacacac 110
 |||||
Sbjct: 913 ggaaaacacac 923

Fig. 4i

572_0 BE046369_0 422 W26553_3 1532 OL: 52
Query: 1 aatcttcataatccccatgtgtcaaaggagagaccaggtggaggttaactgaa 52
 |||||
Sbjct: 1481 aatcttcataatccccatgtgtcaaaggagagaccaggtggaggttaactgaa 1532

Fig. 4j

572_1 BE046369_0 422 W26553_2 1753 OL: 52
Query: 1 aatcttcataatccccatgtgtcaaaggagagaccaggtggaggttaactgaa 52
 |||||
Sbjct: 1702 aatcttcataatccccatgtgtcaaaggagagaccaggtggaggttaactgaa 1753

Fig. 4k

572_2 BE046369_0 422 W26553_1 1832 OL: 52
Query: 1 aatcttcataatccccatgtgtcaaaggagagaccaggtggaggttaactgaa 52
 |||||
Sbjct: 1781 aatcttcataatccccatgtgtcaaaggagagaccaggtggaggttaactgaa 1832

53BP1_76P 53BP1 10394 76P 6837 OL: 3046 OF1: 5463
OF2: 2018

Score = 1659 bits (837), Expect = 0.0
Identities = 840/841 (99%)
Strand = Plus / Minus

Query: 7432 gagacggaatttcgctcttgttgcccaggctggaatgcaatggcacaatctcagctcact
7491

Sbjct: 3113 gagacggaatttcgctcttgttgcccaggctggaatgcaatggcacaatctcagctcact
3054

Query: 7492 gcagcgtctgcttcccagggttaagcaattctcctgtctcagcctcctgagtagctggga
7551

Sbjct: 3053 gcagcgtctgcttcccagggttaagcaattctcctgtctcagcctcctgagtagctggga
2994

Query: 7552 ttacaggcacatgccaccacacctggctaattttgtatttttagtagaatcgagggttc
7611

Sbjct: 2993 ttacaggcacatgccaccacacctggctaattttgtatttttagtagaatcgagggttc
2934

Query: 7612 atcatglttggtcaggctggtctcaaactcctgacttcaggtgatccgccgcctcggcct
7671

Sbjct: 2933 atcatglttggtcaggctggtctcaaactcctgacttcaggtgatccgccgcctcggcct
2874

Query: 7672 cccaaagtgtgggattacaggtgtgagccaccatgcccggcctaagaaatacttttaag
7731

Sbjct: 2873 cccaaagtgtgggattacaggtgtgagccaccatgcccggcctaagaaatacttttaag
2814

Query: 7732 tatattttcattagctagaattgcccaatctgtgtaggtataaatacttgggtatagga
7791

Sbjct: 2813 tatattttcattagctagaattgcccaatctgtgtaggtataaatacttgggtatagga
2754

Query: 7792 gagagaaagcctatcttacctgttgccttcttacttgggtggttaacatccagcagttagtc
7851

Sbjct: 2753 gagagaaagcctatcttacctgttgccttcttacttgggtggttaacatccagcagttagtc
2694

Fig. 5a

7/48

Query: 7852 tatttataaacataattactttttcacatatgaaccataaaaatatttaactttctgctct
7911

|||||
Sbjct: 2693 tatttataaacataattactttttcacatatgaaccataaaaatatttaactttctgctct
2634

Query: 7912 atattgtttgtttaccgctgtatctcccacagcttgaacagtaccaaggtacgtagtagg
7971

|||||
Sbjct: 2633 atattgtttgtctaccgctgtatctcccacagcttgaacagtaccaaggtacgtagtagg
2574

Query: 7972 tgctcaataaatgactattgaataaatgaacatatccaacaaatgttctcaatgtaaagg
8031

|||||
Sbjct: 2573 tgctcaataaatgactattgaataaatgaacatatccaacaaatgttctcaatgtaaagg
2514

Query: 8032 atcagagatgccacatgttctccttgatgggagagacccttccacatgggaatgatggga
8091

|||||
Sbjct: 2513 atcagagatgccacatgttctccttgatgggagagacccttccacatgggaatgatggga
2454

Query: 8092 aggagttgtactcctggatgttcagtaactgcttctaggagaaaaggtagagtcctatca
8151

|||||
Sbjct: 2453 aggagttgtactcctggatgttcagtaactgcttctaggagaaaaggtagagtcctatca
2394

Query: 8152 ctaagccgcagatatttatttgtgtgtggctagaatgggatgttttgaatcttctgttac
8211

|||||
Sbjct: 2393 ctaagccgcagatatttatttgtgtgtggctagaatgggatgttttgaatcttctgttac
2334

Query: 8212 aaccttgggaacgtggctgttatttcaatttatgagccagaaattttcacatcccgaac
8271

|||||
Sbjct: 2333 aaccttgggaacgtggctgttatttcaatttatgagccagaaattttcacatcccgaac
2274

Query: 8272 t 8272

Sbjct: 2273 t 2273

Score = 1655 bits (835), Expect = 0.0
Identities = 849/856 (99%)
Strand = Plus / Minus

Fig. 5a continued

8/48

Query: 5903 agatattgcttttaggggtatttgatgtggtggtgacggacccctcatgccagcctcggt
5962

|||||
Sbjct: 4642 agatattgcttttaggggtatttgatgtggtggtgacggacccctcatgccagcctcggt
4583

Query: 5963 gctgaagtgtgctgaagcattgcagctgcctgtggtgtcacaagagtgggtgatccagt
6022

|||||
Sbjct: 4582 gctgaagtgtgctgaagcattgcagctgcctgtggtgtcacaagagtgggtgatccagt
4523

Query: 6023 cctcattgttggggagagaattggattcaagcagcatccaaaatataaacacgattatgt
6082

|||||
Sbjct: 4522 cctcattgttggggagagaattggattcaagcagcatccaaaatataaacacgattatgt
4463

Query: 6083 ttctcactaaagatacttgggtcttactggttttattccctgctatcgtggagattgtgtt
6142

|||||
Sbjct: 4462 ttctcactaaagatacttgggtcttactggttttattccctgctatcgtggagattgtgtt
4403

Query: 6143 ttaaccagggttttaaatgtgtcttgtgtgtaactggattccttgcatggatcttgtatat
6202

|||||
Sbjct: 4402 ttaaccagggttttaaatgtgtcttgtgtgtaactggattccttgcatggatcttgtatat
4343

Query: 6203 agttttatttgctgaacttttatgataaaataaatgttgaaatctctttggttgtagtaac
6262

|||||
Sbjct: 4342 agttttatttgctgaacttttatgataaaataaatgttgaaatctctttggttgtagtaac
4283

Query: 6263 tgggatttcttcatctgnnnnnnngagcttaatctcagaacaaatgacaagacatagtac
6322

|||||
Sbjct: 4282 tgggatttcttcatctgttttttgagcttaatctcagaacaaatgacaagacatagtac
4223

Query: 6323 tttctctgagtccttcaacaggcttattcacttacggaggacagctcaccaaggaaattg
6382

|||||
Sbjct: 4222 tttctctgagtccttcaacaggcttattcacttacggaggacagctcaccaaggaaattg
4163

Query: 6383 aaaagttaagagtgaacllattctgtggcatcattcccaaagggttatlccagggtgtc
6442

Fig. 5a continued

|||||
 Sbjct: 4162 aaaagttaagagtgaactttattctgtggcatcattcccaaaaggttattccagggtgct
 4103

Query: 6443 taaaatgctatgcttgcagaaactcagtttaaggtaggtgaaggcccagattaacagttg
 6502

|||||
 Sbjct: 4102 taaaatgctatgcttgcagaaactcagtttaaggtaggtgaaggcccagattaacagttg
 4043

Query: 6503 tgccaaaagttgagtgggaattgggcacagctctgtttcctgacagttaaaaaagacctca
 6562

|||||
 Sbjct: 4042 tgccaaaagttgagtgggaattgggcacagctctgtttcctgacagttaaaaaagacctca
 3983

Query: 6563 tgctctctctctgagctgagatcacagctcacctgtgggtactccccaactcttagagct
 6622

|||||
 Sbjct: 3982 tgctctctctctgagctgagatcacagctcacctgtgggtactccccaactcttagagct
 3923

Query: 6623 aaagggagaacgaaaggaccaactgccatgaagggacagtgaccataagcttgatggaat
 6682

|||||
 Sbjct: 3922 aaagggagaacgaaaggaccaactgccatgaagggacagtgaccataagcttgatggaat
 3863

Query: 6683 gaccttccgtaagataaacatgggaagcacaagtgagaacacctggaaatgttacacggt
 6742

|||||
 Sbjct: 3862 gaccttccgtaagataaacatgggaagcacaagtgagaacacctggaaatgttacacggt
 3803

Query: 6743 ctagtcaaagacccaa 6758

|||||
 Sbjct: 3802 ctagtcaaagacccaa 3787

Score = 1211 bits (611), Expect = 0.0
 Identities = 625/632 (98%)
 Strand = Plus / Minus

Query: 6778 gtcacaatagctggaagcagttccttcccttccctctggcatcactgatccctgcatggct
 6837

|||||
 Sbjct: 3767 gtcacaatagctggaagcagttccttcccttccctctggcatcactgatccctgcatggct
 3708

Fig. 5a continued

10/48

Query: 6838 tctcattctctaaagcaggggtcaacaaggnnnnnnnctgtaaagggtaaagagtaaat
6897

|||||
Sbjct: 3707 tctcattctctaaagcaggggtcaacaaggttttttctgtaaagggtaaagagtaaat
3648

Query: 6898 atttcaggctttgtgggccatttgatccatcacaaactactcgctttgctgtgagggcat
6957

|||||
Sbjct: 3647 atttcaggctttgtgggccatttgatccatcacaaactactcgctttgctgtgagggcat
3588

Query: 6958 gaaagcaaccatagacaatgagtaaacaaatgggcacggctgtgtttcagtaaaactgta
7017

|||||
Sbjct: 3587 gaaagcaaccatagacaatgagtaaacaaatgggcacggctgtgtttcagtaaaactgta
3528

Query: 7018 caaaaacagacagcaggccatagtttgccagctcctgctccagagacagcagtggaaagg
7077

|||||
Sbjct: 3527 caaaaacagacagcaggccatagtttgccagctcctgctccagagacagcagtggaaagg
3468

Query: 7078 gtgatcttttagttgataatagcaggggaataagttgtcagagcttcccagtggtgtagaa
7137

|||||
Sbjct: 3467 gtgatcttttagttgataatagcaggggaataagttgtcagagcttcccagtggtgtagaa
3408

Query: 7138 tatgtagtgatgaaaaccagatgcagtgactataacctgatgccagaacactgcattctt
7197

|||||
Sbjct: 3407 tatgtagtgatgaaaaccagatgcagtgactataacctgatgccagaacactgcattctt
3348

Query: 7198 tttcagtttgagggcggtgttcagtgaaatatttctttttacttacactgatatgaatat
7257

|||||
Sbjct: 3347 tttcagtttgagggcggtgttcagtgaaatatttctttttacttacactgatatgaatat
3288

Query: 7258 tgattaccagtgatggctgggccatattaagataaacttcaaccctatggtttgtgtaag
7317

|||||
Sbjct: 3287 tgattaccagtgatggctgggccatattaagataaacttcaaccctatggtttgtgtaag
3228

Query: 7318 atggglaattgggacctgcaatcttcagtatttaaaaatctaacaacttgatctcaatttt
7377

Fig. 5a continued

11/48

|||||
Sbjct: 3227 atgggtaattgggcctgcaatcttcagtatttaaaaatctaacaacttgatctcaattt
3168

Query: 7378 ttcttaaggacctttttcttggagaataatac 7409
|||||
Sbjct: 3167 ttcttaaggacctttttcttggagaataatac 3136

Score = 404 bits (204), Expect = e-115
Identities = 204/204 (100%)
Strand = Plus / Minus

Query: 5556 cagtgtaacacagcttaccagtgtcttctaattgcggatcagcattgtcgaacccggaag
5615

|||||
Sbjct: 6169 cagtgtaacacagcttaccagtgtcttctaattgcggatcagcattgtcgaacccggaag
6110

Query: 5616 tacttctgtgccttgccagtgaggattccttgtgtgtctcatgtctgggtccatgatagt
5675

|||||
Sbjct: 6109 tacttctgtgccttgccagtgaggattccttgtgtgtctcatgtctgggtccatgatagt
6050

Query: 5676 tgccatgccaaccagctccagaactaccgtaattatctgttgccagctgggtacagcctt
5735

|||||
Sbjct: 6049 tgccatgccaaccagctccagaactaccgtaattatctgttgccagctgggtacagcctt
5990

Query: 5736 gaggagcaaagaattctggactgg 5759

|||||
Sbjct: 5989 gaggagcaaagaattctggactgg 5966

Score = 291 bits (147), Expect = 1e-80
Identities = 147/147 (100%)
Strand = Plus / Minus

Query: 5758 ggcaaccccgtagaaatcctttccagaatctgaagggtactcttggtatcagaccaacagc
5817

|||||
Sbjct: 5159 ggcaaccccgtagaaatcctttccagaatctgaagggtactcttggtatcagaccaacagc
5100

Query: 5818 agaaattcctggagctctggtctgagatcctcatgactgggtggtgcagcctctgtgaagc
5877

|||||
Sbjct: 5099 agaaattcctggagctctggtctgagatcctcatgactgggtggtgcagcctctgtgaagc
5040

Fig. 5a continued

12/48

Query: 5878 agcaccattcaagtgcccataacaaag 5904
|||||
Sbjct: 5039 agcaccattcaagtgcccataacaaag 5013

Score = 281 bits (142), Expect = 9e-78
Identities = 142/142 (100%)
Strand = Plus / Minus

Query: 8920 ctgcccagagttccaccagcctgggtatagtatttgttataatctagtcgtaacagtagt
8979
|||||
Sbjct: 2274 ctgcccagagttccaccagcctgggtatagtatttgttataatctagtcgtaacagtagt
2215

Query: 8980 tgagccaaatctgagttgatctgatgattccgaacactggagagaatcttgaacaggagt
9039
|||||
Sbjct: 2214 tgagccaaatctgagttgatctgatgattccgaacactggagagaatcttgaacaggagt
2155

Query: 9040 gaagactggcggctaaagccct 9061
|
Sbjct: 2154 gaagactggcggctaaagccct 2133

Score = 226 bits (114), Expect = 5e-61
Identities = 117/118 (99%)
Strand = Plus / Minus

Query: 9673 ccttcacgagaatgctcagctgggcggctccacgctcatccagtgggcctaggttctgac
9732
|||||
Sbjct: 2135 ccttcacgagaatgctcagctgggcggctccacgctcatccagtgggcctaggttctgac
2076

Query: 9733 tgaccagcgaacaaaaactgtgacagagatctaggatttcattcaggcagtgaaacac 9790
|||||
Sbjct: 2075 tgaccagcgaacaaaaactgtgacagagatctaggatttcattcaggcagtgaaacac 2018

Score = 190 bits (96), Expect = 3e-50
Identities = 96/96 (100%)
Strand = Plus / Minus

Query: 5463 gaatttttggaaattcctcctttcaacaagcagtatacagaatcccagcttcgagcagga
5522
|||||
Sbjct: 6812 gaatttttggaaattcctcctttcaacaagcagtatacagaatcccagcttcgagcagga
6753

Fig. 5a continued

Query: 5523 gctggctatatccttgaagatttcaatgaagcccag 5558
|||||
Sbjct: 6752 gctggctatatccttgaagatttcaatgaagcccag 6717

Score = 52.0 bits (26), Expect = 2e-08
Identities = 26/26 (100%)
Strand = Plus / Minus

Query: 7668 gcctcccaaagtgcctgggattacagg 7693
|||||
Sbjct: 5312 gcctcccaaagtgcctgggattacagg 5287

Fig. 5a continued

14/48

CIDEB1 BLTR2 CIDEB1 2289 BLTR2 6530 OL: 2254 OF1: 17 OF2:

1

Score = 2727 (753.8 bits), Expect = 0.0, Sum P(13) = 0.0
 Identities = 547/549 (99%), Positives = 547/549 (99%), Strands Minus /
 Plus

```

Query:  2250 TTTTGTTAGTTTGAGGGGAAGGGTATGAAGACAGATCTCAAGGTAAAGTCAGAGAGGGCT
2191
Sbjct:    1 TTTTGTTAGTTTGAGGGGAAGGGTATGAAGACAGATCTCAAGGTAAAGTCAGAGAGGGCT 60
          |||
Query:  2190 GTCATCAGTATGCTGGGGAGTTTAGGGACAGGAGGCATTGGTAGGGGATTAGATGTAGCA
2131
Sbjct:   61 GTCATCAGTATGCTGGGGAGTTTAGGGACAGGAGGCATTGGTAGGGGATTAGATGTAGCA
120
          |||
Query:  2130 GCAGTCAGGCTGGGATCAAGATGCCTGGGGGACATCTTGATCTTGGCCTTTCAGGGCAAG
2071
Sbjct:  121 GCAGTCAGGCTGGGATCAAGATGCCTGGGGGACATCTTGATCTTGGCCTTTCAGGGCAAG
180
          |||
Query:  2070 TGGGAGGCTAGAAAGGTGGCTAGGAAAGAACAGCATTCTTCAGGTAAGGGTATAGACTTG
2011
Sbjct:  181 TGGGAGGCCAGAAAGGTGGCTAGGAAAGAACAGCATCTTCAGGTAAAGGTATAGACTTG
240
          |||
Query:  2010 GGATGTGAGGCGTTATGCTGAAAGGTTCTGTACGAGGGGATCAGAGGACAGTGGGGAAA
1951
Sbjct:  241 GGATGTGAGGCGTTATGCTGAAAGGTTCTGTACGAGGGGATCAGAGGACAGTGGGGAAA
300
          |||
Query:  1950 TTGGGTGGGTTATCTAGCCTGTACTGTCTGCAGGTCCTGAAATTTGATGCTGTCATAGTC
1891
Sbjct:  301 TTGGGTGGGTTATCTAGCCTGTACTGTCTGCAGGTCCTGAAATTTGATGCTGTCATAGTC
360
          |||
Query:  1890 TTTGCAGTGGGTCGGTTGGAATGATTCTGGGGGCAGAAGCTCAGAGCCCCCTTAGTAGGAA
1831
Sbjct:  361 TTTGCAGTGGGTCGGTTGGAATGATTCTGGGGGCAGAAGCTCAGAGCCCCCTTAGTAGGAA
420
          |||
Query:  1830 TGGAGGCGGCCCTTCTGCTGCCACTGCTCAGCCCCCTCCACTGCATGACGAAGGGTGGAG
1771
Sbjct:  421 TGGAGGCGGCCCTTCTGCTGCCACTGCTCAGCCCCCTCCACTGCATGACGAAGGGTGGAG
480
          |||
Query:  1770 GAAATTCACAGCAACATATGCCCCAGGCCTTGACAGCAGTGTGGAGGTCCACGAAGGAGC
1711
Sbjct:  481 GAAATTCACAGCAACATATGCCCCAGGCCTTGACAGCAGTGTGGAGGTCCACGAAGGAGC
540
  
```

Fig. 5b

Query: 1710 TCCCTGAGT 1702

|||||||

Sbjct: 541 TCCCTGAAT 549

Score = 1322 (365.4 bits), Expect = 0.0, Sum P(13) = 0.0
Identities = 266/268 (99%), Positives = 266/268 (99%), Strands Minus /
Plus

Query: 757 CCTGTAGGCCCAAGGATGTCGGTCTGCTACCGTCCCCCAGGGAACGAGACACTGCTGA
698

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5426 CCTGTAGGCCCAAGGATGTCGGTCTGCTACCGTCCCCCAGGGAACGAGACACTGCTGA
5485

Query: 697 GCTGGAAGACTTCGCGGGCCACAGGCACAGCCTTCCTGCTGCTGGCGGCGCTGCTGGGGC
638

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5486 GCTGGAAGACTTCGCGGGCCACAGGCACAGCCTTCCTGCTGCTGGCGGCGCTGCTGGGGC
5545

Query: 637 TGCCTCCCAACGGCTTCGTGGTGTGGAGCTTGCCGGCGCTGCCAGCCTGCACGGCGCGGAC
578

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5546 TGCCTGGCAACGGCTTCGTGGTGTGGAGCTTGCGGGGCTGGCGGCGCTGCACGGGGGCGAC
5605

Query: 577 CGCTGGCGGCCACGCTTGTGCTGCACCTGGCGCTGGCCGACGGCGCGGTGCTGCTGCTCA
518

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5606 CGCTGGCGGCCACGCTTGTGCTGCACCTGGCGCTGGCCGACGGCGCGGTGCTGCTGCTCA
5665

Query: 517 CGCCGCTCTTTGTGGCCTTCCTGACCGG 490

|||||||||||||||||||||

Sbjct: 5666 CGCCGCTCTTTGTGGCCTTCCTGACCCG 5693

Score = 1316 (363.8 bits), Expect = 0.0, Sum P(13) = 0.0
Identities = 264/265 (99%), Positives = 264/265 (99%), Strands Minus /
Plus

Query: 421 CAAGCGTGCTGCTCACCGGCCTCCTCACCTGCAGCGCTGCCTCGCAGTCACCGCCCCCT
362

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5762 CCAGCGTGCTGCTCACCGGCCTGCTCAGCCTGCAGCGCTGCCTCGCAGTCACCGCCCCCT
5821

Query: 361 TCCTGGCGCCTCGGCTGCGCAGCCCGGCCCTGGCCCGCCGCTGCTGCTGGCGGTCTGGC
302

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5822 TCCTGGCGCCTCGGCTGCGCAGCCCGGCCCTGGCCCGCCGCTGCTGCTGGCGGTCTGGC
5881

Query: 301 TGGCCGCCCTGTTGCTCGCCGTCCCGGCCGCGCTCTACCGCCACCTGTGGAGGGACCGCG
242

||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Sbjct: 5882 TGGCCGCCCTGTTGCTCGCCGTCCCGGCCGCGCTCTACCGCCACCTGTGGAGGGACCGCG
5941

Fig. 5b continued

16/48

Query: 241 TATGCCAGCTGTGCCACCCGTCGCCGGTCCACGCCGCCGCCACCTGAGCCTGGAGACTC
182

|||||
Sbjct: 5942 TATGCCAGCTGTGCCACCCGTCGCCGGTCCACGCCGCCGCCACCTGAGCCTGGAGACTC
6001

Query: 181 TGACCGCTTTCGTGCTTCCTTTTCGG 157

|||||
Sbjct: 6002 TGACCGCTTTCGTGCTTCCTTTTCGG 6026

Score = 920 (254.3 bits), Expect = 0.0, Sum P(13) = 0.0
Identities = 188/193 (97%), Positives = 188/193 (97%), Strands Minus /
Plus

Query: 1708 CCTGAGTACTTTCTTTGGGCCAAGTCCTTGAAAGTCACAACCTCATAGAGTAGAGCCCGTA
1649

|||||
Sbjct: 724 CCTGAGTACTTTCTTTGGGCCAAGTCCTTGAAAGTCACAACCTCATAGAGTAGAGCCCGTA
783

Query: 1648 GAATGTGGCTTTGACATTTCAGGCTGCCAAAGAGGTCTCGAGGGTTTTGCTTGTACACGTC
1589

|||||
Sbjct: 784 GAATGTGGCTTTGACATTTCAGGCTGCCAAAGAGGTCTCGAGGGTTTTGCTTGTACACGTC
843

Query: 1588 AAAGGTGAATCGGGCGATGTCCTTGCTGTGCTTGGGGCTCTCCCGTCCAGGCCCATATGA
1529

|||||
Sbjct: 844 AAAGGTGAATCGGGCGATGTCCTTGCTGTGCTTGGGGCTCTCCCGTCCAGGCCCATATGA
903

Query: 1528 CAGCACTCCACTC 1516

|||||
Sbjct: 904 CAGCACTCCACTC 916

Score = 753 (208.2 bits), Expect = 0.0, Sum P(13) = 0.0
Identities = 157/165 (95%), Positives = 157/165 (95%), Strands Minus /
Plus

Query: 1529 ACAGCACTCCACTCCTTGTAGGGCTCCAGCTCTGACCAGACTGCAACACCATCAGGCACG
1470

|||
Sbjct: 1139 ATAGGCCTCTTACCCTTGTAGGGCTCCAGCTCTGACCAGACTGCAACACCATCAGGCACG
1198

Query: 1469 TGTCATCCTCCAGCAGCTGGAAGAAGTCCTCACTGTCCACTGCAGTTCATCCTCCTCTA
1410

|||||
Sbjct: 1199 TGTCATCCTCCAGCAGCTGGAAGAAGTCCTCACTGTCCACTGCAGTTCATCCTCCTCTA
1258

Query: 1409 GCACCAGGGTTAGCACTCCATTTCAGCAGTAGGGTCTCCAATGCTT 1365

|||||
Sbjct: 1259 GCACCAGGGTTAGCACTCCATTTCAGCAGTAGGGTCTCCAATGCCT 1303

Score = 746 (206.2 bits), Expect = 0.0, Sum P(13) = 0.0

Fig. 5b continued

17/48

Identities = 150/151 (99%), Positives = 150/151 (99%), Strands Minus / Plus

Query: 1369 TGCTTTGGCTAGCAGCTCCTGGCGGGTGGCAGCTGTCAGGCCTTTCCGGATGGTCCGCTT
1310

Sbjct: 2146 TACTTTGGCTAGCAGCTCCTGGCGGGTGGCAGCTGTCAGGCCTTTCCGGATGGTCCGCTT
2205

Query: 1309 GTGATCACAGACACGGAAAGGTCGCTGGGGTGGTGGAGCTGAGGTCCAGACCCTCCGTCC
1250

Sbjct: 2206 GTGATCACAGACACGGAAAGGTCGCTGGGGTGGTGGAGCTGAGGTCCAGACCCTCCGTCC
2265

Query: 1249 AAACCTCCGAGCTTATATTAGATACTGACCTG 1219

Sbjct: 2266 AAACCTCCGAGCTTATATTAGATACTGACCTG 2296

Score = 737 (203.7 bits), Expect = 0.0, Sum P(13) = 0.0
Identities = 148/150 (98%), Positives = 149/150 (99%), Strands Minus / Plus

Query: 1118 CTGCTCTTTCTTCCTCCTTGGTCGGAGGAGGGGCTGGCTCACTGCTCTGGCTTCATTTT
1059

Sbjct: 3257 CTGCTCTTTCTTCCTCCTTGGTCGGAGGAGGGGCTGGCTCACTGCTCTGGCTTCATTTT
3316

Query: 1058 CCAGAGCTGCCTGCTGCAGTCACACTTAGGTCATCTTCTCTCACTTTTCTCCTTTTGCCG
999

Sbjct: 3317 CCAGAGCTGCCTGCTGCAGTCACACTTAGGTCATCTTCTCTCACTTTTCTCCTTTTGCCG
3376

Query: 998 ATTACTGCGACGTGACAGAGATGTCAATRTG 969

Sbjct: 3377 ATTAGTGGACGTGACAGAGATGTGAATGGG 3406

Score = 714 (197.4 bits), Expect = 0.0, Sum P(13) = 0.0
Identities = 146/150 (97%), Positives = 146/150 (97%), Strands Minus / Plus

Query: 166 TTCCTTTTCGGCTGATGCTCGGCTGCTACAGCGTGACGCTGGCACGGCTGCGGGGCGCCCCG
107

Sbjct: 6018 TCCTTTTCGGGCTGATGCTCGGCTGCTACAGCGTGACGCTGGCACGGCTGCGGGGCGCCCCG
6077

Query: 106 CTGGGGCTCCGGGCGGCACGGGGCGCGGGTGGGCCGGCTGGTGAGCGCCATCGTGCTTGC 47

Sbjct: 6078 CTGGGGCTCCGGGCGGCACGGGGCGCGGGTGGGCCGGCTGGTGAGCGCCATCGTGCTTGC
6137

Query: 46 CTTCCGGCTTGCTCTGGGCCCCCTACACGC 17

Sbjct: 6138 CTTCCGGCTTGCTCTGGGCCCCCTACACGC 6167

Fig. 5b continued

Score = 638 (176.4 bits), Expect = 0.0, Sum P(13) = 0.0
 Identities = 130/133 (97%), Positives = 130/133 (97%), Strands Minus /
 Plus

Query: 962 GGGCAGGGGATGTCCTTTGATGGCATCAAGACTTTAGCTTCTGGTGCCTGTGTCCCAGC
 903

Sbjct: 3404 GGGGCAGGGGATGTCCTTTGATGGCATCAAGACTTTAGCTTCTGGTGCCTGTGTCCCAGC
 3463

Query: 902 TCTGATTTTCAGTTGCAGCCGTGATGGACAGTTGCATGGAAGCTGAGACTCTCACTGACAG
 843

Sbjct: 3464 TCTGATTTTCAGTTGCAGCCGTGATGGACAGTTGCATGGAAGCTGAGACTCTCACTGACAG
 3523

Query: 842 TGAAACCCCTCAAA 830

Sbjct: 3524 TGAAACCCCTCAAA 3536

Score = 537 (148.4 bits), Expect = 0.0, Sum P(13) = 0.0
 Identities = 109/111 (98%), Positives = 109/111 (98%), Strands Minus /
 Plus

Query: 1227 ACTGACCTGAGTAAGTCACTGGGGTTCAGAGCTGAGAGGTACTCCATGGTGGACCGGAGA
 1168

Sbjct: 2590 AGTCACCTGAGTAAGTCACTGGGGTTCAGAGCTGAGAGGTACTCCATGGTGGACCGGAGA
 2649

Query: 1167 GTTCCTTCCCTGGAACCTTCTGGGCTGGGTGGTTCTCTCCTGTGCTGGGGCT 1117

Sbjct: 2650 GTTCCTTCCCTGGAACCTTCTGGGCTGGGTGGTTCTCTCCTGTGCTGGGGCT 2700

Score = 394 (108.9 bits), Expect = 0.0, Sum P(13) = 0.0
 Identities = 82/86 (95%), Positives = 82/86 (95%), Strands Minus / Plus

Query: 839 AACCCCTCAAAATGAACACAATCCCTGCTTTCTCTGCCAAGGATCCTTGTAGGGTCCCCCAG
 780

Sbjct: 3526 AAACCCCTCAAAATGAACACAATCCCTGCTTTCTCTGCCAAGGATCCTTGTAGGGTCCCCCAG
 3585

Query: 779 CTTCCCCACTTTTTTCTGTGTCCTG 754

Sbjct: 3586 CTTCCCCACTTTTTTCTGTGTCCTG 3611

Score = 370 (102.3 bits), Expect = 0.0, Sum P(13) = 0.0
 Identities = 74/74 (100%), Positives = 74/74 (100%), Strands Minus / Plus

Query: 493 CCGGCAGGCCTGGCCGCTGGGCCAGGCGGGCTGCAAGGCGGTGTACTACGTGTGCGCGCT
 434

Sbjct: 5691 CCGGCAGGCCTGGCCGCTGGGCCAGGCGGGCTGCAAGGCGGTGTACTACGTGTGCGCGCT
 5750

Query: 433 CAGCATGTACGCCA 420

Sbjct: 5751 CAGCATGTACGCCA 5764

Fig. 5b continued

19/48

CIDEB2 BLTR2 CIDEB2 1511 BLTR2 6530 OL: 1410 OF1: 1 OF2:

Score = 2736 (756.0 bits), Expect = 0.0, Sum P(5) = 0.0
Identities = 548/549 (99%), Positives = 548/549 (99%), Strands Minus / Plus

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Query: 1384 TTTTGTAGTTTGAGGGGAAGGGTATGAAGACAGATCTCAAGGTAAAGTCAGAGAGGGCT
1325
Sbjct: 1 TTTTGTAGTTTGAGGGGAAGGGTATGAAGACAGATCTCAAGGTAAAGTCAGAGAGGGCT 60

Query: 1324 GTCATCAGTATGCTGGGGAGTTTAGGGACAGGAGGCATTGGTAGGGGATTAGATGTAGCA
1265
Sbjct: 61 GTCATCAGTATGCTGGGGAGTTTAGGGACAGGAGGCATTGGTAGGGGATTAGATGTAGCA
120

Query: 1264 GCAGTCAGGCTGGGATCAAGATGCCTGGGGGACATCTTGATCTTGGCCTTTCAGGGCAAG
1205
Sbjct: 121 GCAGTCAGGCTGGGATCAAGATGCCTGGGGGACATCTTGATCTTGGCCTTTCAGGGCAAG
180

Query: 1204 TGGGAGGCCAGAAAGGTGGCTAGGAAAGAACAGCATTCTTCAGGTAAGGGTATAGACTTG
1145
Sbjct: 181 TGGGAGGCCAGAAAGGTGGCTAGGAAAGAACAGCATTCTTCAGGTAAGGGTATAGACTTG
240

Query: 1144 GGATGTGAGGCGTTATGCTGAAAGGTTCTGTACGAGGGGATCAGAGGACAGTGGGGAAA
1085
Sbjct: 241 GGATGTGAGGCGTTATGCTGAAAGGTTCTGTACGAGGGGATCAGAGGACAGTGGGGAAA
300

Query: 1084 TTGGGTGGGTATCTAGCCTGTACTGTCTGCAGGTCCTGAAATTTGATGCTGTATAGTC
1025
Sbjct: 301 TTGGGTGGGTATCTAGCCTGTACTGTCTGCAGGTCCTGAAATTTGATGCTGTATAGTC
360

Query: 1024 TTTGCAGTGGGTTCGGTTGGAATGATTCTGGGGGCAGAAGCTCAGAGCCCCTTAGTAGGAA
965
Sbjct: 361 TTTGCAGTGGGTTCGGTTGGAATGATTCTGGGGGCAGAAGCTCAGAGCCCCTTAGTAGGAA
420

Query: 964 TGGAGGCGGCCCTTCTGCTGCCACTGCTCAGCCCCCTCCACTGCATGACGAAGGGTGGAG
905
Sbjct: 421 TGGAGGCGGCCCTTCTGCTGCCACTGCTCAGCCCCCTCCACTGCATGACGAAGGGTGGAG
480

Query: 904 GAAATCCCAGCAACATATGGCCCAGGCCTTGCAGCACTGTGAGGTCCAACGAAGGAGC
845
Sbjct: 481 GAAATCCCAGCAACATATGGCCCAACGAAGGAGC
540

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Fig. 5c

20/48

Query: 844 TCCCTGAGT 836
 |||||
 Sbjct: 541 TCCCTGAAT 549

Score = 1787 (493.8 bits), Expect = 0.0, Sum P(5) = 0.0
 Identities = 359/361 (99%), Positives = 359/361 (99%), Strands Minus /
 Plus

Query: 361 ACTGACCTGAGTAAGTCACTGGGGTTTCAGAGCTGAGAGGTAATCCATGGTGGACCGGAGA
 302
 |||||
 Sbjct: 2590 AGTCACCTGAGTAAGTCACTGGGGTTTCAGAGCTGAGAGGTAATCCATGGTGGACCGGAGA
 2649

Query: 301 GTTCCTTCCCTGGAACCTTCTGGGCTGGGTGGTTCTCTCTGTGCTGGGGCTTTAGTGGTG
 242
 |||||
 Sbjct: 2650 GTTCCTTCCCTGGAACCTTCTGGGCTGGGTGGTTCTCTCTGTGCTGGGGCTTTAGTGGTG
 2709

Query: 241 TTTTCTGTTACAAACCTGGGATCTCAGCCCAGGACAAGGTGGGAATGAGTCAAGCCTGGA
 182
 |||||
 Sbjct: 2710 TTTTCTGTTACAAACCTGGGATCTCAGCCCAGGACAAGGTGGGAATGAGTCAAGCCTGGA
 2769

Query: 181 CTCTGGCCCCCTGCCTGGCCAGTAAGAAGGGCAAAGTCCAAGGGGAGGGATGAGGGAGG
 122
 |||||
 Sbjct: 2770 CTCTGGCCCCCTGCCTGGCCAGTAAGAAGGGCAAAGTCCAAGGGGAGGGATGAGGGAGG
 2829

Query: 121 GGCCAGATGGGGTCCTGGAGGAAGAATTGCCTGGCAAAGCCATTGGAGCTTGTATGTGT 62
 |||||
 Sbjct: 2830 GGCCAGATGGGGTCCTGGAGGAAGAATTGCCTGGCAAAGCCATTGGAGCTTGTATGTGT
 2889

Query: 61 GTCTTTGGTGATGACATGTGTTGTGAGGGTAGATGGGAACCATGTAAAAGGATGAAATGT 2
 |||||
 Sbjct: 2890 GTCTTTGGTGATGACATGTGTTGTGAGGGTAGATGGGAACCATGTAAAAGGATGAAATGT
 2949

Query: 1 G 1
 |
 Sbjct: 2950 G 2950

Score = 965 (266.6 bits), Expect = 0.0, Sum P(5) = 0.0
 Identities = 193/193 (100%), Positives = 193/193 (100%), Strands Minus /
 Plus

Query: 842 CCTGAGTACTTTCTTTGGGCCAAGTCCTTGAAAGTCACAACCTCATAGAGTAGAGCCCGTA
 783
 |||||
 Sbjct: 724 CCTGAGTACTTTCTTTGGGCCAAGTCCTTGAAAGTCACAACCTCATAGAGTAGAGCCCGTA
 783

Query: 782 GAATCTGCCTTTGACATTCAGCCTGCCAAAGAGGTCTCGAGGGTTTTGCTTGTACACGTC
 723

Fig. 5c continued

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Sbjct: 784 GAATGTGGCTTTGACATTGAGGCTGCCAAAGAGGTCTCGAGGGTTTGTCTGTACACGTC
843
Query: 722 AAAGGTGAATCGGGCGATGTCCTTGCTGTGCTTGGGCCTCTCCCGTCCCAGGCCATATGA
663
Sbjct: 844 AAAGGTGAATCGGGCGATGTCCTTGCTGTGCTTGGGCCTCTCCCGTCCCAGGCCATATGA
903
Query: 662 CAGCACTCCACTC 650
Sbjct: 904 CAGCACTCCACTC 916

Score = 757 (209.2 bits), Expect = 0.0, Sum P(5) = 0.0
Identities = 161/173 (93%), Positives = 161/173 (93%), Strands Minus /
Plus

Query: 671 GCCATATGACAGCACTCCACTCCTTGAGGGCTCCAGCTCTGACCAGACTGCAACACCAT
612
Sbjct: 1131 GCCCCAGTATAGGCCTCTTACCCTTGAGGGCTCCAGCTCTGACCAGACTGCAACACCAT
1190
Query: 611 CAGGCACGTGTCATCCTCCAGCAGCTGGAAGAAGTCCTCACTGTCCACTGCAGTTCCATC
552
Sbjct: 1191 CAGGCACGTGTCATCCTCCAGCAGCTGGAAGAAGTCCTCACTGTCCACTGCAGTTCCATC
1250
Query: 551 CTCCTCTAGCACCAGGGTTAGCACTCCATTGAGCAGTAGGGTCTCCAATGCTT 499
Sbjct: 1251 CTCCTCTAGCACCAGGGTTAGCACTCCATTGAGCAGTAGGGTCTCCAATGCCT 1303

Score = 746 (206.1 bits), Expect = 0.0, Sum P(5) = 0.0
Identities = 150/151 (99%), Positives = 150/151 (99%), Strands Minus /
Plus

Query: 503 TGCTTTGGCTAGCAGCTCCTGGCGGGTGGCAGCTGTCAGGCCTTTCCGGATGGTCCGCTT
444
Sbjct: 2146 TACTTTGGCTAGCAGCTCCTGGCGGGTGGCAGCTGTCAGGCCTTTCCGGATGGTCCGCTT
2205
Query: 443 GTGATCACAGACACGGAAGGTCGCTGGGGTGGTGGAGCTGAGGTCCAGACCCTCCGTCC
384
Sbjct: 2206 GTGATCACAGACACGGAAGGTCGCTGGGGTGGTGGAGCTGAGGTCCAGACCCTCCGTCC
2265
Query: 383 AAACCTCCGAGCTTATATTAGATACTGACCTG 353
Sbjct: 2266 AAACCTCCGAGCTTATATTAGATACTGACCTG 2296

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Fig. 5c continued

22/48

APAF1_EB1 APAF1 7042 EBl a 1752 OL: 141 OF1: 6889
OF2: 1612

Score = 705 (194.8 bits), Expect = 3.9e-52, P = 3.9e-52
Identities = 141/141 (100%), Positives = 141/141 (100%), Strands Minus /
Plus

Query: 7029 TGTTTTTCAAACAATTTTGTGAATTTTATTTTACAAAATTTTAAATTCATATTTT
6970

|||||
Sbjct: 1612 TGTTTTTCAAACAATTTTGTGAATTTTATTTTACAAAATTTTAAATTCATATTTT
1671

Query: 6969 AAAATGTATACCAAGGCAAAAAATCATATAAGCTATATCATAAATACAAGAGTTTCAAA
6910

|||||
Sbjct: 1672 AAAATGTATACCAAGGCAAAAAATCATATAAGCTATATCATAAATACAAGAGTTTCAAA
1731

Query: 6909 ACATACAAGAGACATATAATG 6889

|||||
Sbjct: 1732 ACATACAAGAGACATATAATG 1752

Fig. 5d

23/48

Hum_AChR_MINK2 AChR 2457 MINK2 4863 OL: 236 OF1: 2175
OF2: 4583

Score = 218 bits (110), Expect = 2e-59
Identities = 110/110 (100%)
Strand = Plus / Minus

Query: 2254 aaggggttacttgctgctcacactatatacagatgcaagcaaggggcgtggagagtgaggg
2313

|||||
Sbjct: 4787 aaggggttacttgctgctcacactatatacagatgcaagcaaggggcgtggagagtgaggg
4728

Query: 2314 ctccctgctccctccctccaccggggaagggcatgggctagaagaggaga 2363

|||||
Sbjct: 4727 ctccctgctccctccctccaccggggaagggcatgggctagaagaggaga 4678

Score = 133 bits (67), Expect = 9e-34
Identities = 71/75 (98%), Gaps = 1/75 (1%)
Strand = Plus / Minus

Query: 2384 aatgttttggctg-cgggggtccccctccattccctggagtttgggggaaggggaatcat
2442

|||||
Sbjct: 4657 aatgttttggctggcggggtccccctccattccctggagtttgggggaaggggaatcat
4598

Query: 2443:taaaagtgtttcaga 2457

|||||
Sbjct: 4597 taaagtgtttcaga 4583

Score = 103 bits (52), Expect = 8e-25
Identities = 52/52 (100%)
Strand = Plus / Minus

Query: 2175 agctggttgaattgtctttattaacaaacaggatatccaaggccactacatt 2226

|||||
Sbjct: 4863 agctggttgaattgtctttattaacaaacaggatatccaaggccactacatt 4812

Fig. 5e

24/48

Mus_AChR Mus_AChR 1590 Anti_Mus_AChR 2227 OL: 672 OF1:
934 OF2: 506

Score = 1221 (337.4 bits), Expect = 3.7e-254, Sum P(4) = 3.7e-254
Identities = 245/246 (99%), Positives = 245/246 (99%), Strands Minus /
Plus

Query: 1587 AGTTCACAAACCAGATTTATTGTCAGCGGCCTGTTTTCAAATCTCTTTCTTGGGGGGTG
1528

Sbjct: 506 AGTTCACAAACCAGATTTATTGTCAGCGGCCTGTTTTCAAATCTCTTTCTTGGGGGGTG
565

Query: 1527 GGGGAGAGGTGGGTGCCAGTGCAGGCTCATGTTGGATGCACGGTGGGTAAGGGAGATCA
1468

Sbjct: 566 GGGGAGAGGTGGGTGCCAGTGCAGGCTCATGTTGGATGCACGGTGGGTAAGGGAGATCA
625

Query: 1467 GGAACCTGGTTGAAGTAACCCCCAAGGAAGATGAGAGTAGAACCAACGCTGAAGAGCACC
1408

Sbjct: 626 GGAACCTGGTTGAAGTAACCCCCAAGGAAGATGAGAGTAGAACCAACGCTGAAGAGCACC
685

Query: 1407 AAAGCTGCCCCAAAACAGACATTGTCCAGGGCCTTCCCCATACGCACCCAGTCGGACAGT
1348

Sbjct: 686 AAAGCTGCCCCAAAACAGACATTGTCCAGGGCCTTCCCCATACGCACCCAGTCGGACAGT
745

Query: 1347 TCCTCT 1342

Sbjct: 746 TCCTGT 751

Score = 954 (263.6 bits), Expect = 3.7e-254, Sum P(4) = 3.7e-254
Identities = 198/207 (95%), Positives = 198/207 (95%), Strands Minus /
Plus

Query: 1249 GCAGAGGGCTGCGGTCCAAGTTCCGTGCCGATGCCTCTGACCCTCAAACACGAGTTCGCT
1190

Sbjct: 1007 GCAGTGCTTACCGGTCCAAGTTCCGTGCCGATGCCTCTGACCCTCAAACACGAGTTCGCT
1066

Query: 1189 CCGCGGCTTTTCAAGATGAGCTCCTCCGCTCTGAGCAGAATGCCACAGACGAGGCACG
1130

Sbjct: 1067 CCGCGGCTTTTCAAGATGAGCTCCTCCGCTCTCAGCACAATGCCACAGACGAGGCACG
1126

Query: 1129 CCTCGCTGGTGAGGCAGTTCGGGGATCCTCTGGGGGTGGGCTCGAGCCCAGGAGACGCGG
1070

Sbjct: 1127 CCTCGCTGGTGAGGCAGTTCGGGGATCCTCTGGGGGTGGGCTCGAGCCCAGGAGACGCGG
1186

Query: 1069 CAGCAGCTCTAATAAAATCTGGCGCAG 1043

Fig. 5f

Sbjct: 1187 CAGCAGCTCTAATAAAATCTGCAGCCG 1213

Score = 591 (163.3 bits), Expect = 3.7e-254, Sum P(4) = 3.7e-254
Identities = 119/120 (99%), Positives = 119/120 (99%), Strands Minus /
Plus

Query: 1053 ATCTGGCGCAGCCGAGGGGATCTAGCATCACTCCTTGGCGTCCTCAAAGATACGTTGAGC
994

Sbjct: 1277 ACCTGGCGCAGCCGAGGGGATGTAGCATGAGTCGTTGGCGTCCTCAAAGATACGTTGAGC
1336

Query: 993 ACGATGACGCAATTCATGACAATGAGCGTGGCAACCACCATGACGAATATAAGATACCTG
934

934
Sbjct: 1337 ACGATGACGCAATTCATGACAATGAGCGTGGCAACCACCATGACGAATATAAGATACCTG
1396

Score = 546 (150.9 bits), Expect = 3.7e-254, Sum P(4) = 3.7e-254
Identities = 110/111 (99%), Positives = 110/111 (99%), Strands Minus /
Plus

Query: 1346 CCTCTCCAGTGGCTTCCTGGTCTCTTGTGCTCTCAGCCACAAAGTTCACAGCATCCACAC
1287

1287
Sbjct: 826 CCTCTCCAGTGGCTTCCTGGTCTCTTGTGCTCTCAGCCACAAAGTTCACAGCATCCACAC
885

Query: 1286 AGCAGCGGATTTCTGGGGCTGCAGCACCCAGGTTCTGGCAGAGGGCTGCGG 1236

Query: 1288 AAGCAAGGCTTTTCTGGGGCTGCAGCACCCAGGTTCTGGCAGAGGGCTGCTG 936
 Sbjct: 886 AGCAGCGGATTTCTGGGGCTGCAGCACCCAGGTTCTGGCAGAGGGCTGCTG 936

Fig. 5f continued

26/48

CyclinE2 CyclinE2 2714 Anti_CyclinE2 6773 OL: 1855
OF1: 865 OF2: 2006

Score = 7885 (2178.8 bits), Expect = 0.0, Sum P(4) = 0.0
Identities = 1577/1577 (100%), Positives = 1577/1577 (100%), Strands Minus
/ Plus

```

Query: 2714 TACAGCTGGCAGCGCAGAGAAGGAAAAAAGTTTCTCCAAGCAATGGCAAACTTTACT
2655
      |||
Sbjct: 2006 TACAGCTGGCAGCGCAGAGAAGGAAAAAAGTTTCTCCAAGCAATGGCAAACTTTACT
2065

Query: 2654 TTTAAGCAGTTAAATTTTTTAACTTTTATTTTTTAAACAATGGGCTAAAAATAAACAGT
2595
      |||
Sbjct: 2066 TTTAAGCAGTTAAATTTTTTAACTTTTATTTTTTAAACAATGGGCTAAAAATAAACAGT
2125

Query: 2594 ATTAAAAGGTTAAGTTTATATAATACATATGTACACAATTAGTGGTGTTCCTTTTCAGA
2535
      |||
Sbjct: 2126 ATTAAAAGGTTAAGTTTATATAATACATATGTACACAATTAGTGGTGTTCCTTTTCAGA
2185

Query: 2534 CAAAATACTGAAACAAATATTAGTTTAAAAACAACTATACAGAAGACTTCATACCGTAA
2475
      |||
Sbjct: 2186 CAAAATACTGAAACAAATATTAGTTTAAAAACAACTATACAGAAGACTTCATACCGTAA
2245

Query: 2474 CAATAAATGTATAGTTTCTTCAAAGGGAGAAGAGATTCACATATCTGATAACAAAATAAA
2415
      |||
Sbjct: 2246 CAATAAATGTATAGTTTCTTCAAAGGGAGAAGAGATTCACATATCTGATAACAAAATAAA
2305

Query: 2414 CTAGCAATCTAGTTTCTAATCTACTTTATGAGGCTGGATTTTTTTTTTAGAAAAGCTAA
2355
      |||
Sbjct: 2306 CTAGCAATCTAGTTTCTAATCTACTTTATGAGGCTGGATTTTTTTTTTAGAAAAGCTAA
2365

Query: 2354 TTTAAAATATTTAGAAATAGCTAGCCTATGTACAGCAAGTTTCATGTCTTTTTTTAATA
2295
      |||
Sbjct: 2366 TTTAAAATATTTAGAAATAGCTAGCCTATGTACAGCAAGTTTCATGTCTTTTTTTAATA
2425

Query: 2294 AATAGATTTCTAGGAGTCAGTATATATTTAATACTCTTCTTCCTTAAGAAAATAGAAGTT
2235
      |||
Sbjct: 2426 AATAGATTTCTAGGAGTCAGTATATATTTAATACTCTTCTTCCTTAAGAAAATAGAAGTT
2485

Query: 2234 TAGGTCAAGTGTTAAGCTTTATCACTTTGACACTGTCCTTATCTCACAATGGAGGAATTT
2175
      |||

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Fig. 5g

27/48

Sbjct: 2486 TAGGTCAAGTGTTAAGCTTTATCACTTTGACACTGTCCTTATCTCACAATGGAGGAATTT
2545

Query: 2174 AGAAAGGACCTTAACAGTTTCACAAACATAAATAAAGCCTTAGTCACACTAAATTAAAA
2115

|||||

Sbjct: 2546 AGAAAGGACCTTAACAGTTTCACAAACATAAATAAAGCCTTAGTCACACTAAATTAAAA
2605

Query: 2114 AAAAAATTCCTTAGGGATATCTTAGAGTAGTAAAGTGAAGTTCCTCATATAAATAGTTTGA
2055

|||||

Sbjct: 2606 AAAAAATTCCTTAGGGATATCTTAGAGTAGTAAAGTGAAGTTCCTCATATAAATAGTTTGA
2665

Query: 2054 AAGGGTACTTAAGTTTTTCACCCAAATTGTGATATACAAAAAGGTTATTACCAAGCAACC
1995

|||||

Sbjct: 2666 AAGGGTACTTAAGTTTTTCACCCAAATTGTGATATACAAAAAGGTTATTACCAAGCAACC
2725

Query: 1994 TACATGTCAAGAAAGCCCCAGTTAGGAAGGAGCCACAGCATTTATCTTGTGTTATAATTTT
1935

|||||

Sbjct: 2726 TACATGTCAAGAAAGCCCCAGTTAGGAAGGAGCCACAGCATTTATCTTGTGTTATAATTTT
2785

Query: 1934 TTTGGTACTCCCACTGTTTAGAGCACAGGTTGAACACCATGTTTCATCTAAGCCTTATTAG
1875

|||||

Sbjct: 2786 TTTGGTACTCCCACTGTTTAGAGCACAGGTTGAACACCATGTTTCATCTAAGCCTTATTAG
2845

Query: 1874 TTAAAAAATGTGTTATGGCAAGGCAAATAAACTAGTTTAAAAAACATTAAATTTACCAT
1815

|||||

Sbjct: 2846 TTAAAAAATGTGTTATGGCAAGGCAAATAAACTAGTTTAAAAAACATTAAATTTACCAT
2905

Query: 1814 TTGTAGAAATTCAAGTTTTATAATAGCTTGCTATAGCAGCTATAGATAAATTAGTCACCT
1755

|||||

Sbjct: 2906 TTGTAGAAATTCAAGTTTTATAATAGCTTGCTATAGCAGCTATAGATAAATTAGTCACCT
2965

Query: 1754 TATTACAAAACCTAAACCTTTGTAAACAAGTTTAAATTTAATTTTCAAGAACCAAATTGCA
1695

|||||

Sbjct: 2966 TATTACAAAACCTAAACCTTTGTAAACAAGTTTAAATTTAATTTTCAAGAACCAAATTGCA
3025

Query: 1694 CTAGTCAAGAGTGTAGGAATTTTGAGAATCTAACAACTAGATTCAAAGTACTGTATCACT
1635

|||||

Sbjct: 3026 CTAGTCAAGAGTGTAGGAATTTTGAGAATCTAACAACTAGATTCAAAGTACTGTATCACT
3085

Query: 1634 TAGTATACCCTTTAAGGTAGCACTTATCCAGTCCAAAACCTCCAGTGACAAAATTCCTAGT
1575

Fig. 5g continued

```

Sbjct: 3086 TAGTATACCCTTTAAGGTAGCACTTATCCAGTCCAAACTCCAGTGACAAAATTCCTAGT
3145
Query: 1574 TTATCAAGATAAACACAGTAACACTGGATTAAAGGAAAAACATTGCTATGGTATAGACTG
1515
Sbjct: 3146 TTATCAAGATAAACACAGTAACACTGGATTAAAGGAAAAACATTGCTATGGTATAGACTG
3205
Query: 1514 TGGTTGGCTTCTATCCAGTAACCTTGGGAATGAAGACATCTTTGTAAACAAGTCCTGCTG
1455
Sbjct: 3206 TGGTTGGCTTCTATCCAGTAACCTTGGGAATGAAGACATCTTTGTAAACAAGTCCTGCTG
3265
Query: 1454 TTTCTTTAACAGCTAACATAGGAAATAATTAAATGTATTCTTTAGTGCCAATTGTAAGTT
1395
Sbjct: 3266 TTTCTTTAACAGCTAACATAGGAAATAATTAAATGTATTCTTTAGTGCCAATTGTAAGTT
3325
Query: 1394 TTAAAATCAGAATGGCAGTGTAACCTTGTGAATTGGCTAGGGCAATCAATCACAGCACTAC
1335
Sbjct: 3326 TTAAAATCAGAATGGCAGTGTAACCTTGTGAATTGGCTAGGGCAATCAATCACAGCACTAC
3385
Query: 1334 TTTCTGTAAAACTTTAGTAGTTCAGTGATACCAGTTCTACCCAATCTTGGTGAATTCCAA
1275
Sbjct: 3386 TTTCTGTAAAACTTTAGTAGTTCAGTGATACCAGTTCTACCCAATCTTGGTGAATTCCAA
3445
Query: 1274 CTTGTTTGCTTAGTTATCTTCTTTAGTGTTTCCTGGTGGTTTTTCAGTGCTCTTCGGTG
1215
Sbjct: 3446 CTTGTTTGCTTAGTTATCTTCTTTAGTGTTTCCTGGTGGTTTTTCAGTGCTCTTCGGTG
3505
Query: 1214 GTGTCATAATGCCTCCATTGCACACTGGTGACAACTGTCCCCCTTTTCTGAAGGTGTTTA
1155
Sbjct: 3506 GTGTCATAATGCCTCCATTGCACACTGGTGACAACTGTCCCCCTTTTCTGAAGGTGTTTA
3565
Query: 1154 TGTAATTTACTTCCTCC 1138
Sbjct: 3566 TGTAATTTACTTCCTCC 3582

Score = 805 (222.4 bits), Expect = 0.0, Sum P(4) = 0.0
Identities = 161/161 (100%), Positives = 161/161 (100%), Strands Minus /
Plus

Query: 1139 CCAGCATAGCCAAATAGTTTGTATGIGTCTGGATATTATGTCTGTCTTCATAGGAATCT
1080

```

Fig. 5g continued

Sbjct: 3967 CCAGCATAGCCAAATAGTTTGTATGTGTCTGGATATTATGTCTGTCTTCCATAGGAATCT
4026

Query: 1079 TCTTAAAAGTCTTCAGCTTCACTGGACTAGTACTTTTTACTACATTGACAAAAGGTACCA
1020
|||||

Sbjct: 4027 TCTTAAAAGTCTTCAGCTTCACTGGACTAGTACTTTTTACTACATTGACAAAAGGTACCA
4086

Query: 1019 TCCAATCTACACATTCTGAAATACTGTCCCACTCCAAACCT 979
|||||

Sbjct: 4087 TCCAATCTACACATTCTGAAATACTGTCCCACTCCAAACCT 4127

Score = 581 (160.5 bits), Expect = 0.0, Sum P(4) = 0.0
Identities = 117/118 (99%), Positives = 117/118 (99%), Strands Minus /
Plus

Query: 982 ACCTGAGGCTTTCTTAACCACTTCAATGGAGGTAAAATGGCACAAGGCAGCAGCAGTCAG
923
|||||

Sbjct: 4615 ACCTGAGGCTTTCTTAACCACTTCAATGGAGGTAAAATGGCACAAGGCAGCAGCAGTCAG
4674

Query: 922 TATTCTGTACTGGAACCTAATGAATCAATGGCTAGAATACACAGATCTAAAAGCTGA 865
|||||

Sbjct: 4675 TATTCTGTACTGGAACCTAATGAATCAATGGCTAGAATACACAGATCTAAAAGCTAA 4732

Fig. 5g continued

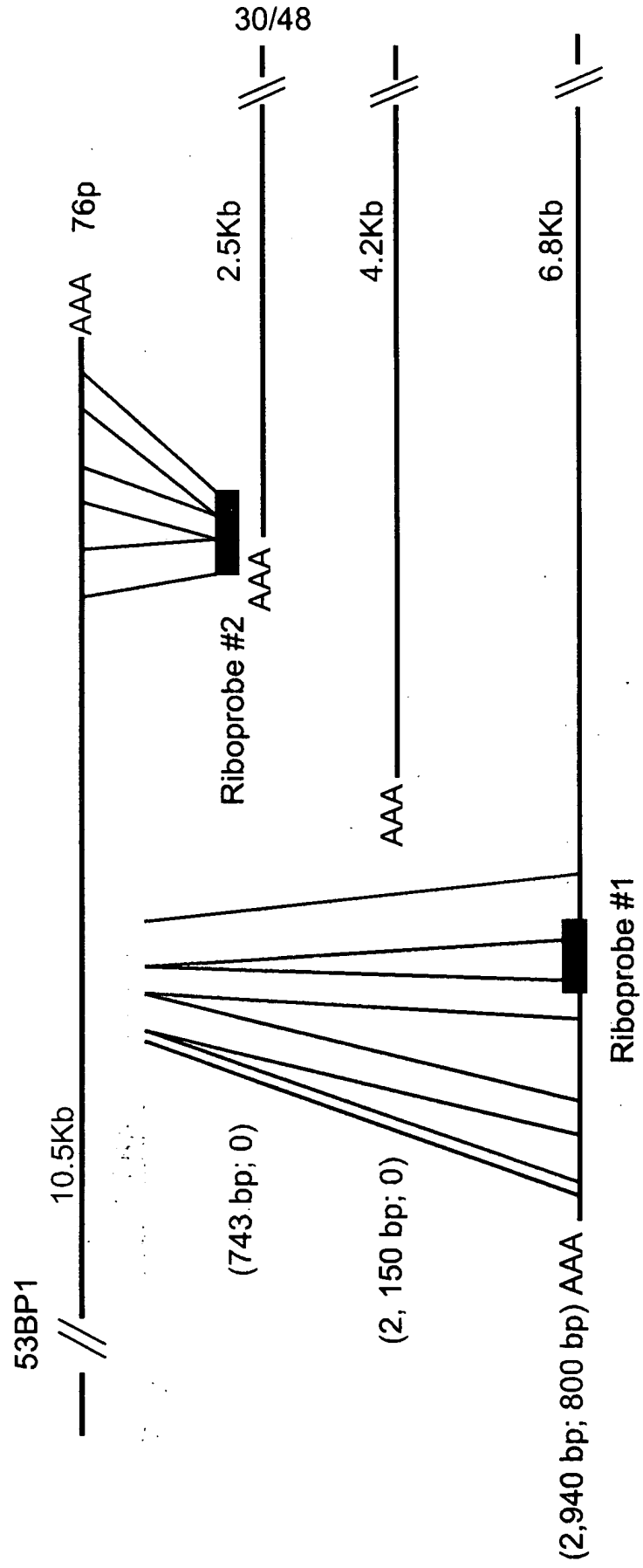


Fig. 6

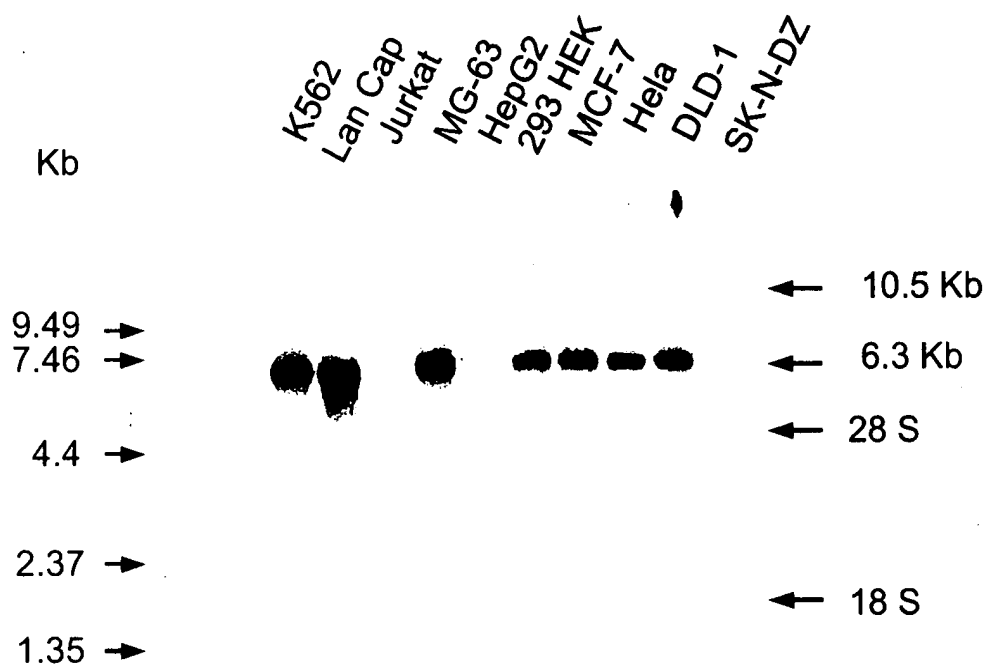


Fig. 7

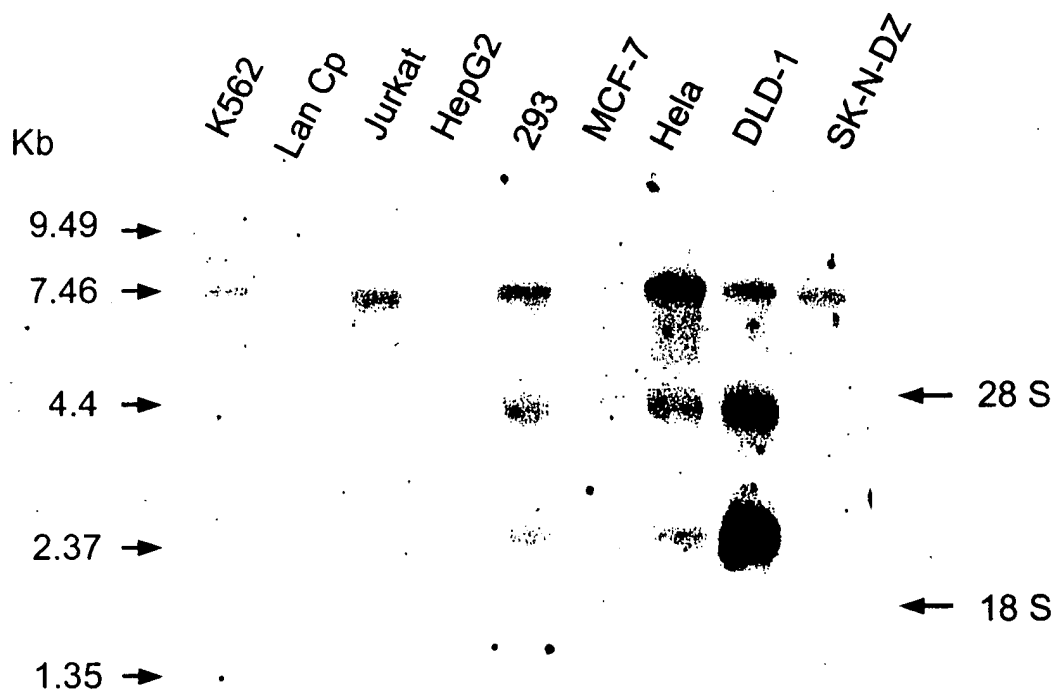


Fig. 8

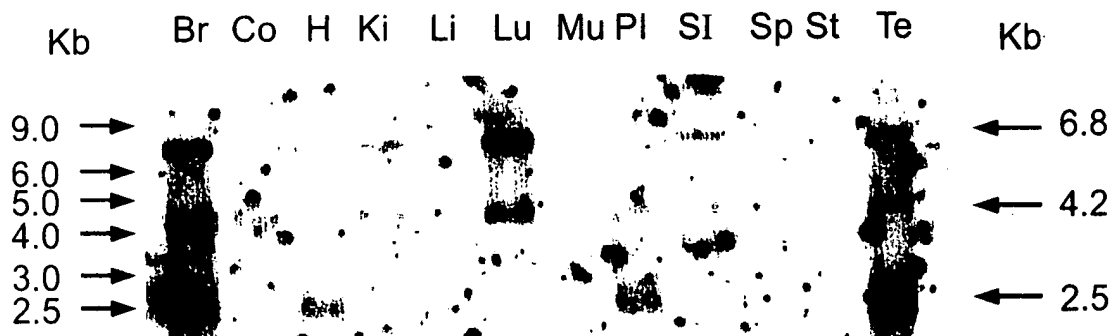


Fig. 9

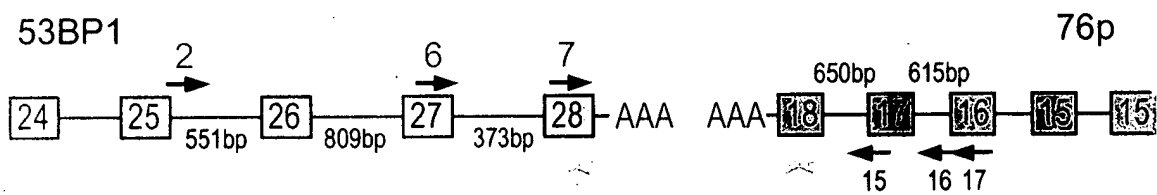


Fig. 10

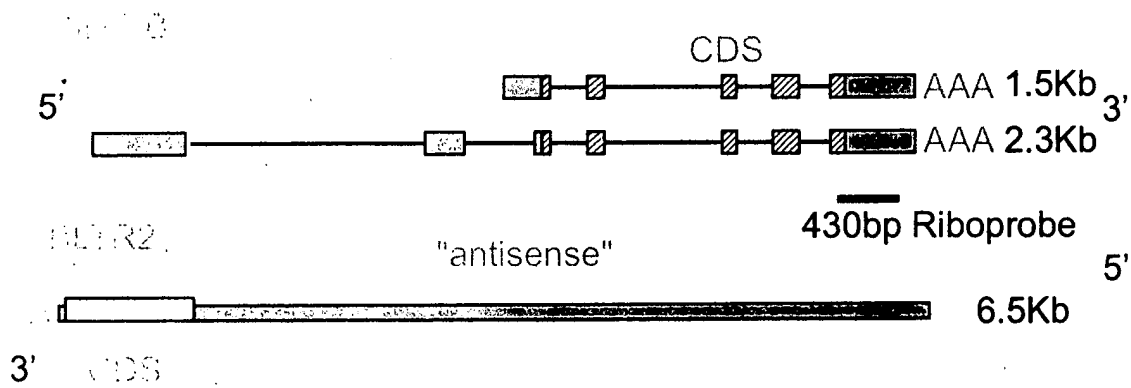


Fig. 11

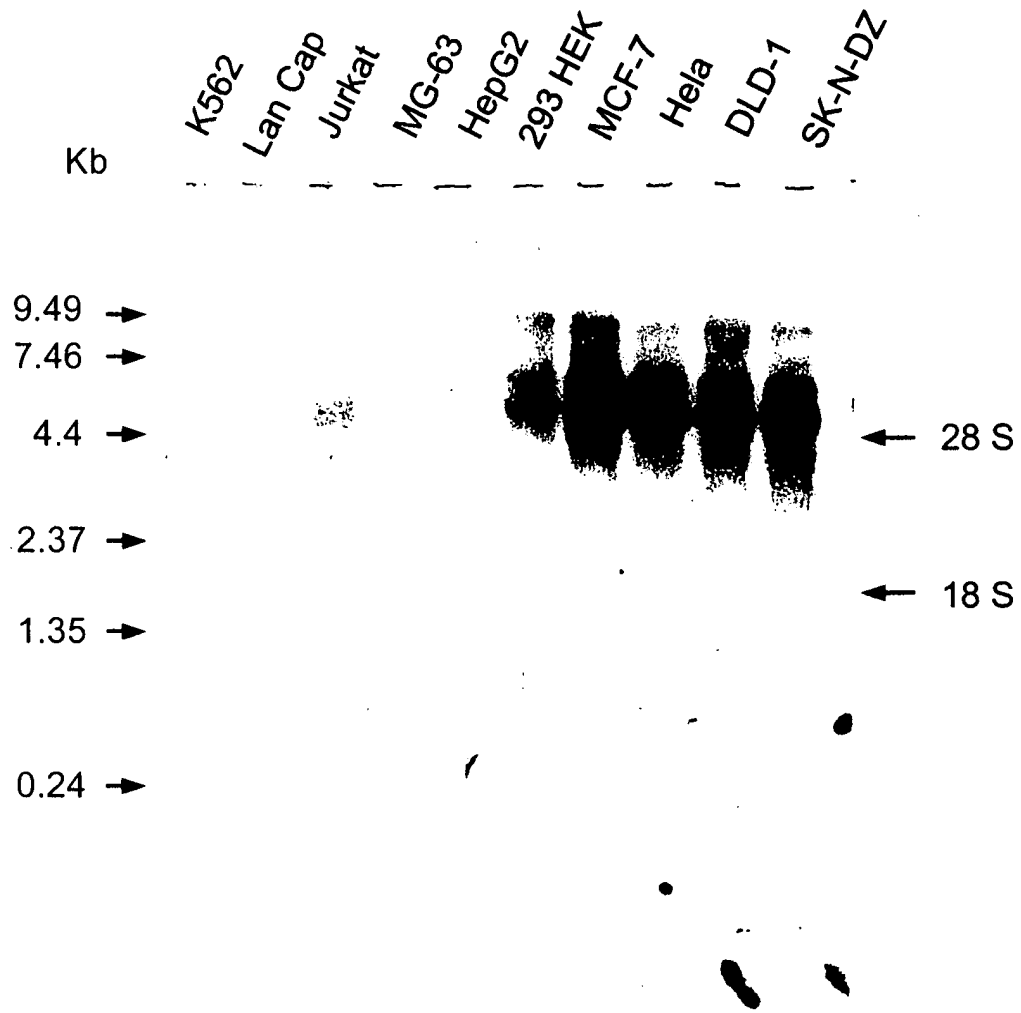


Fig. 12

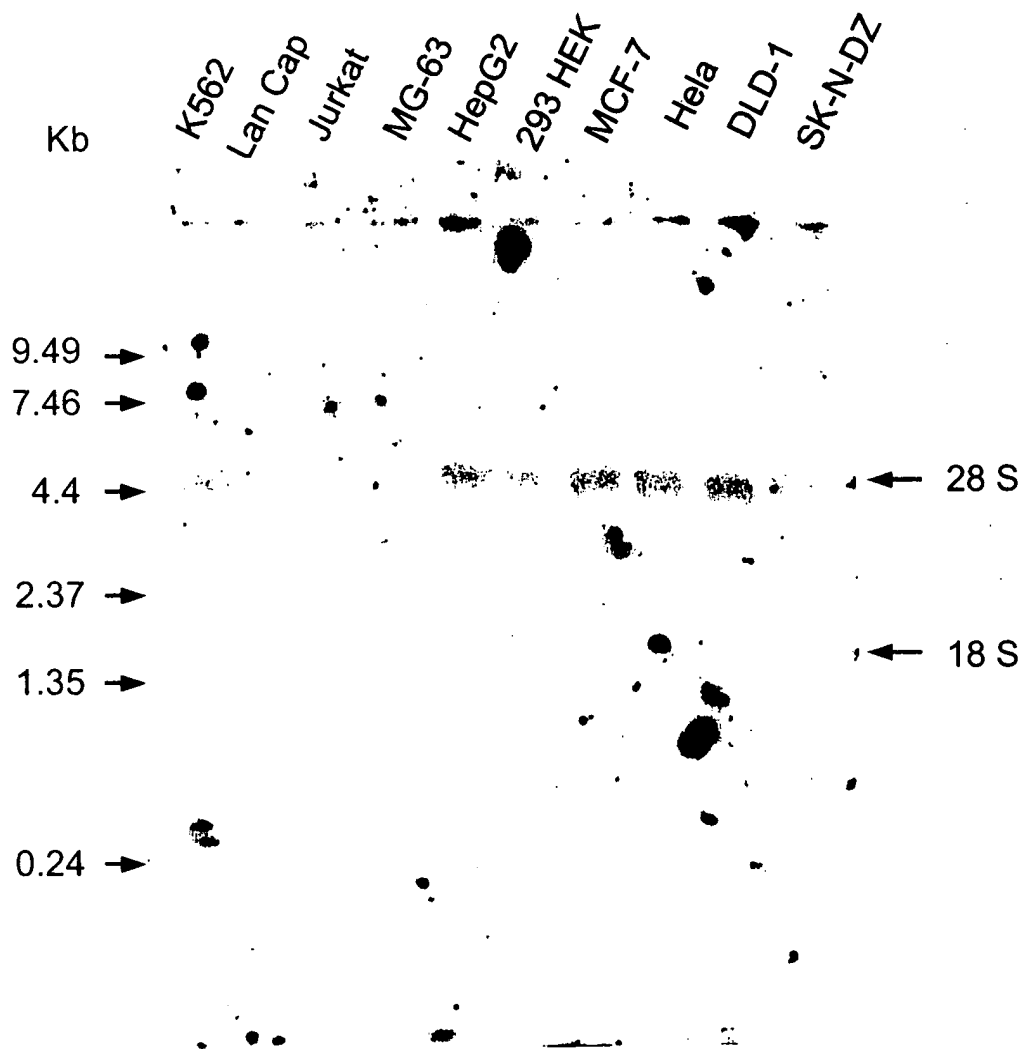


Fig. 13

APAF-1, 7kb



1.7 kb



3 kb

AAA



- riboprobe, 366b

Fig. 14

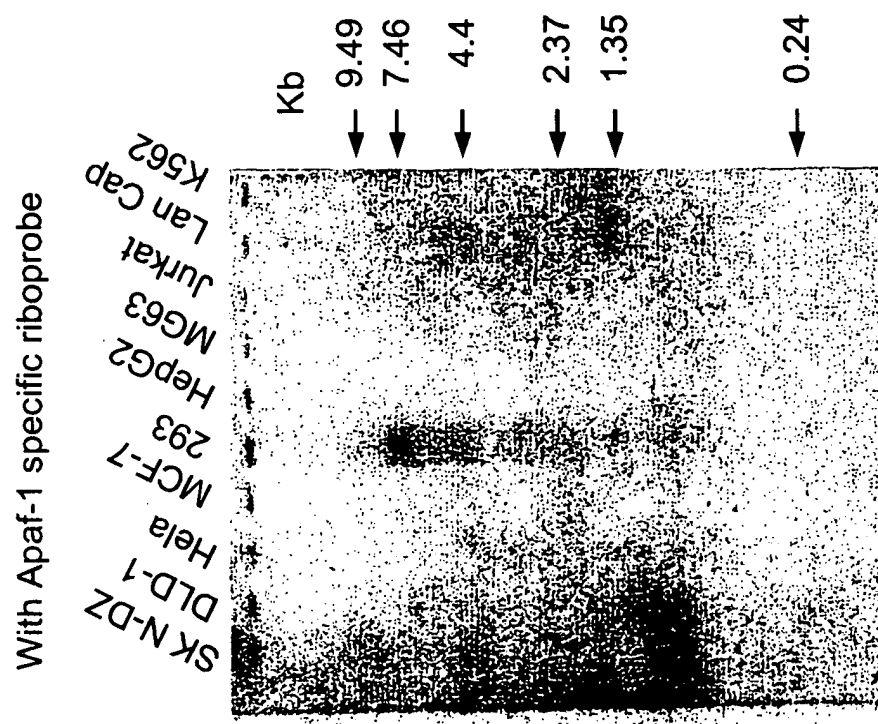


Fig. 15b

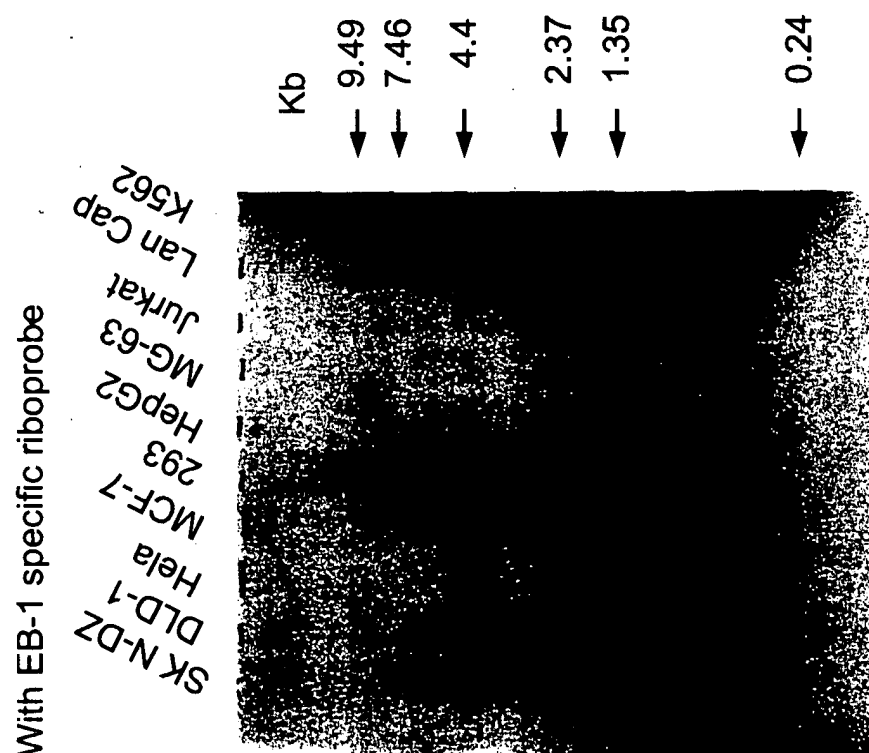


Fig. 15a

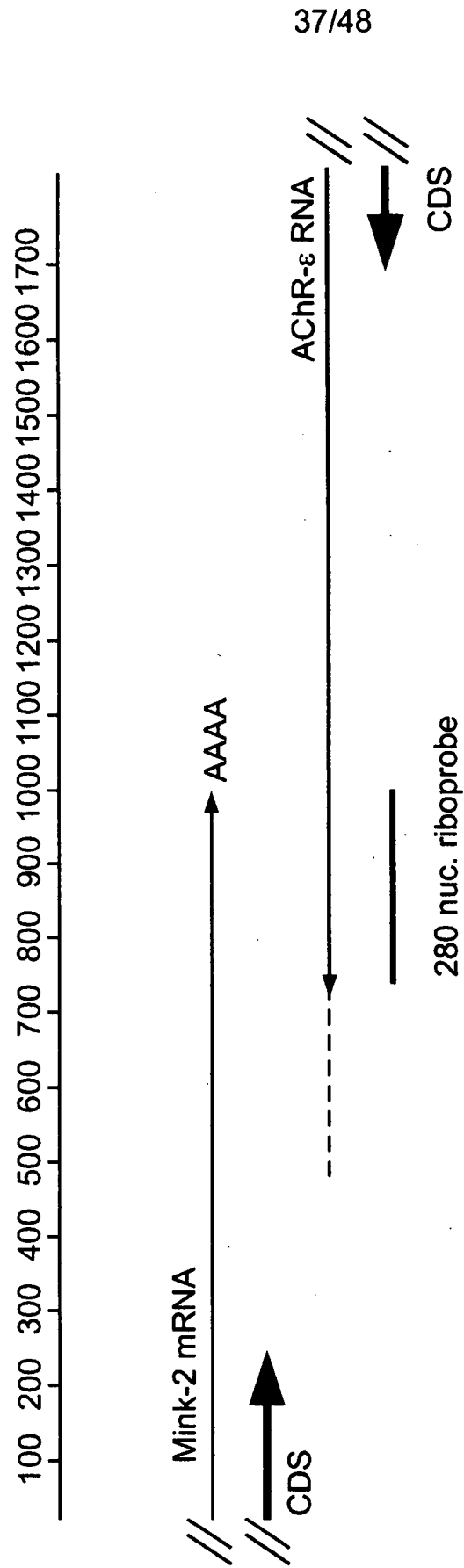


Fig. 16

Fig. 17a

AChR- ϵ

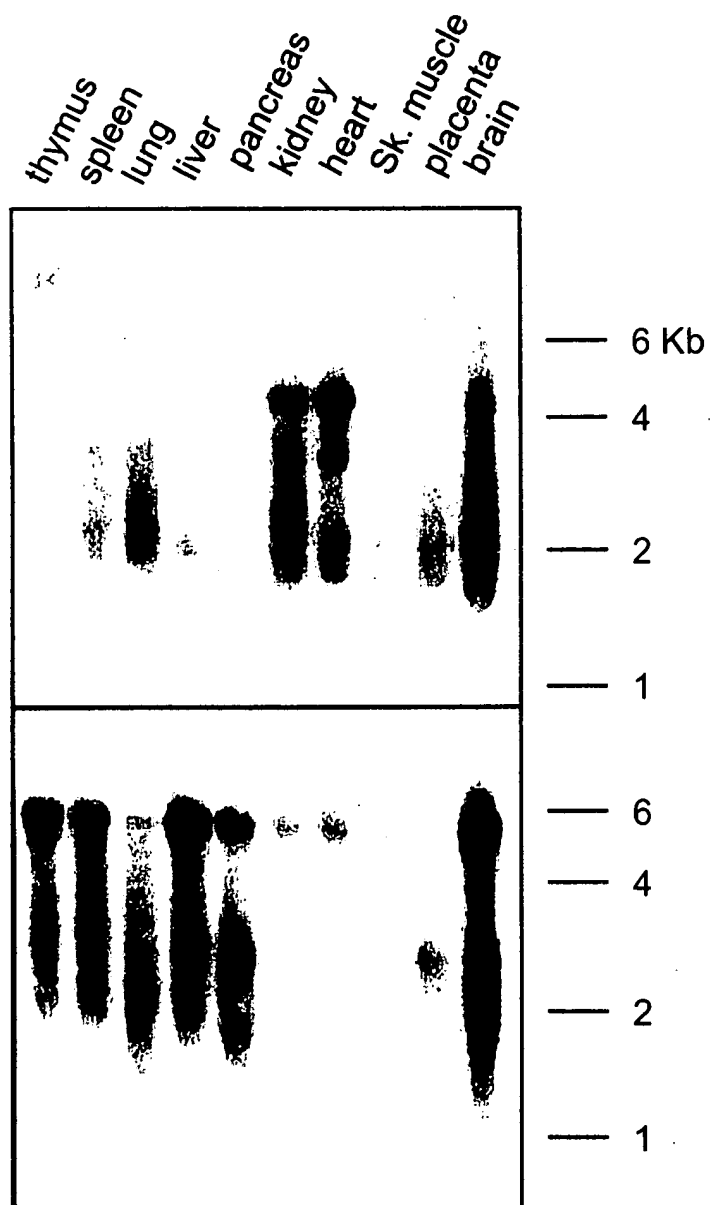


Fig. 17b

Mink

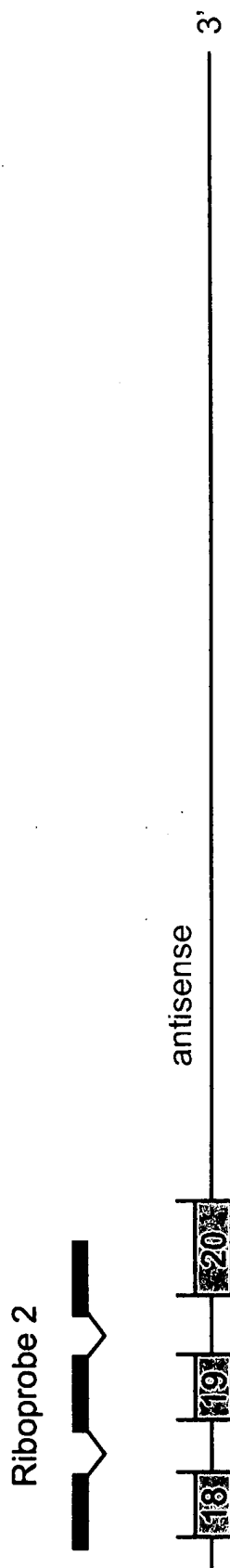
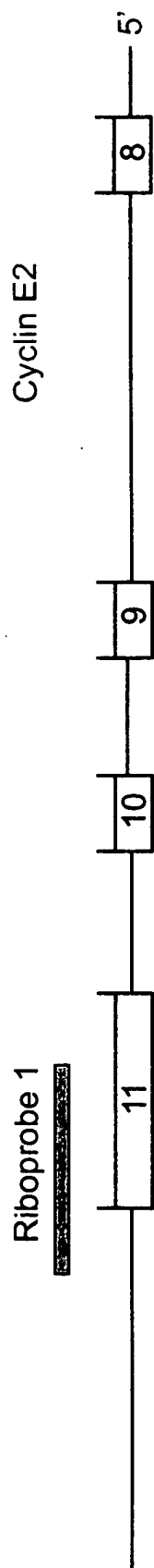


Fig. 18

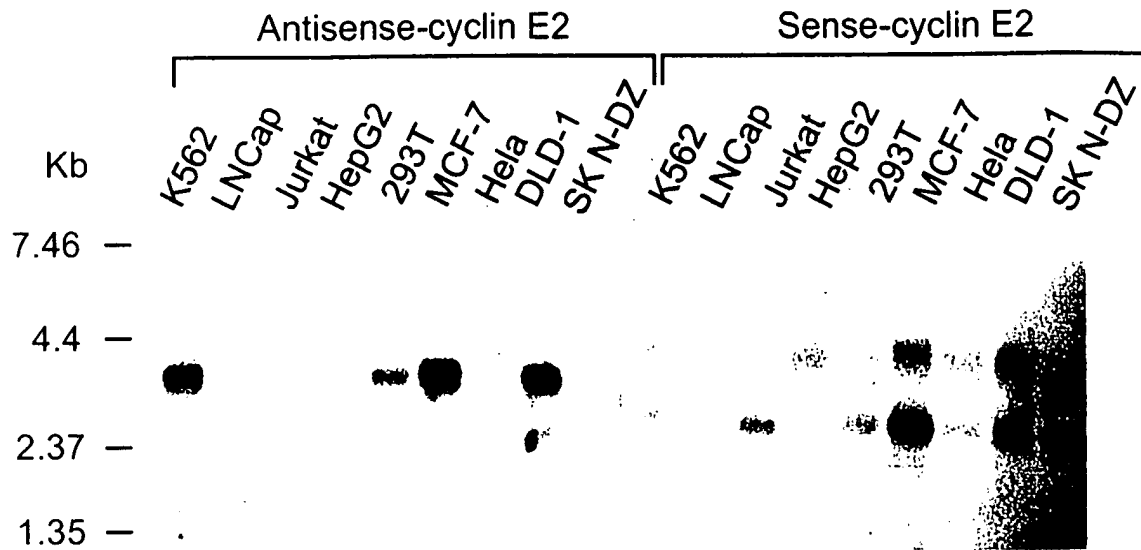


Fig. 19a

Fig. 19b

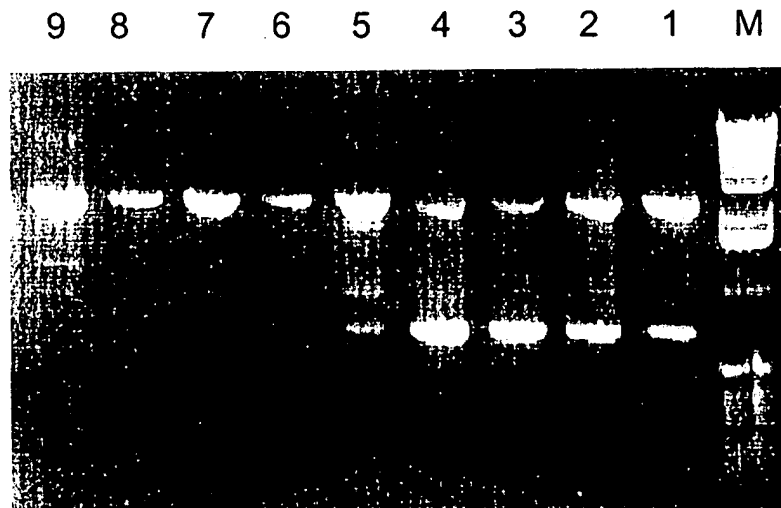
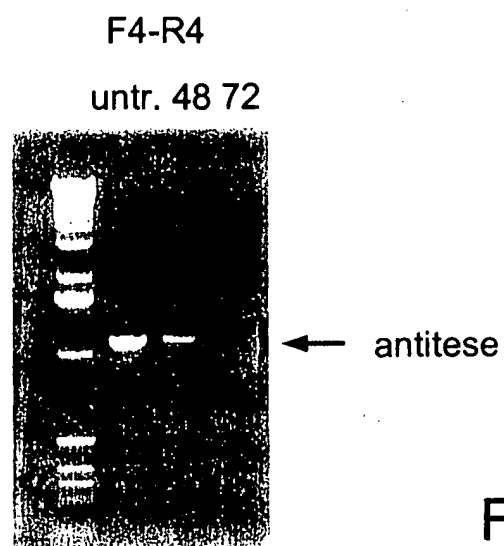
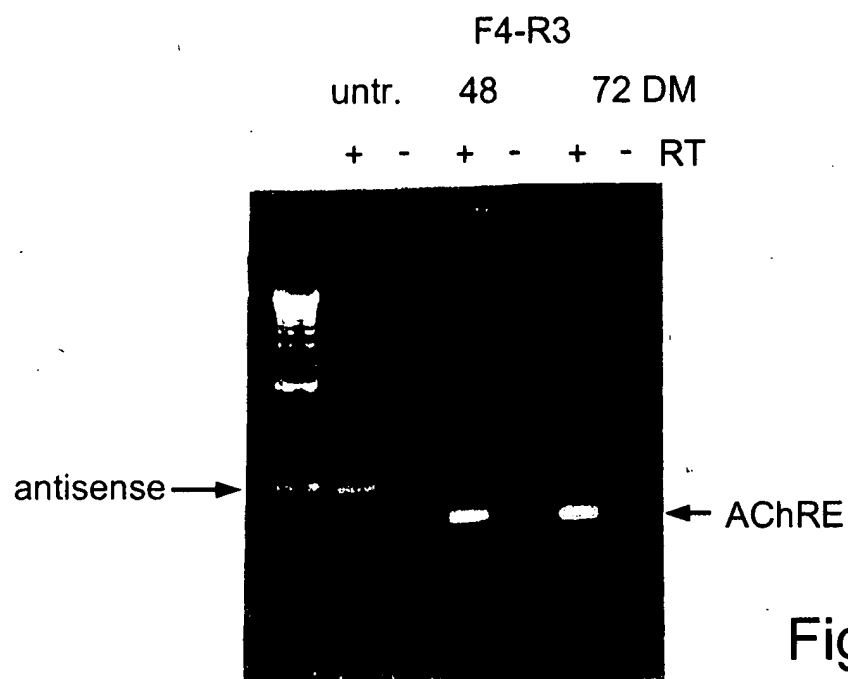
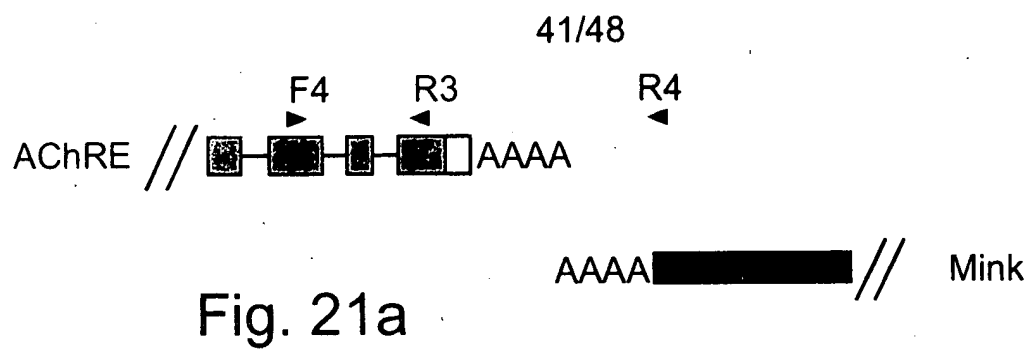


Fig. 20



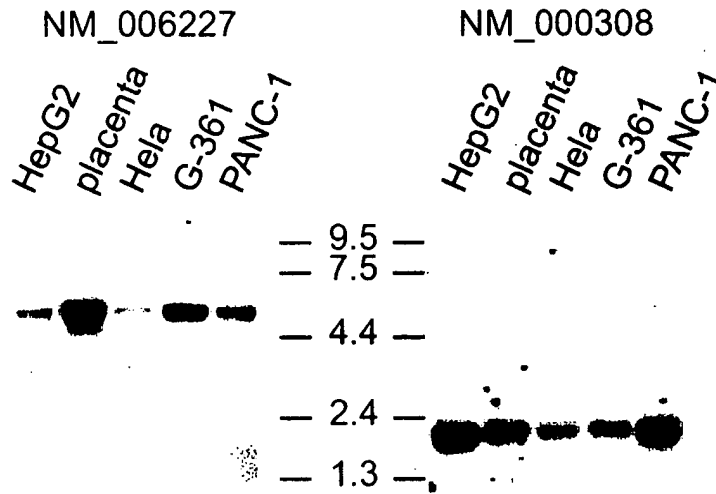
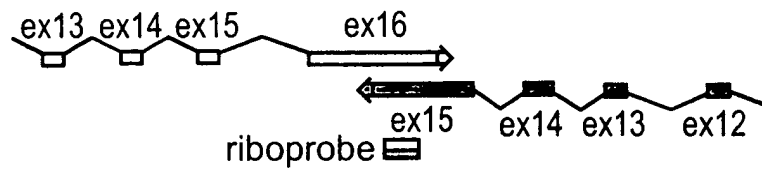


Fig. 22a

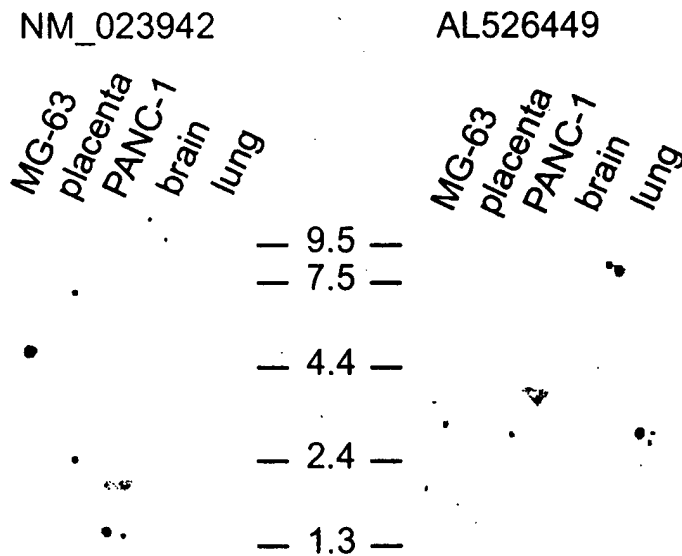
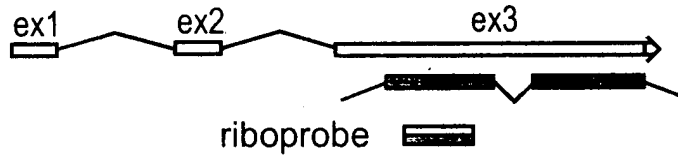


Fig. 22b

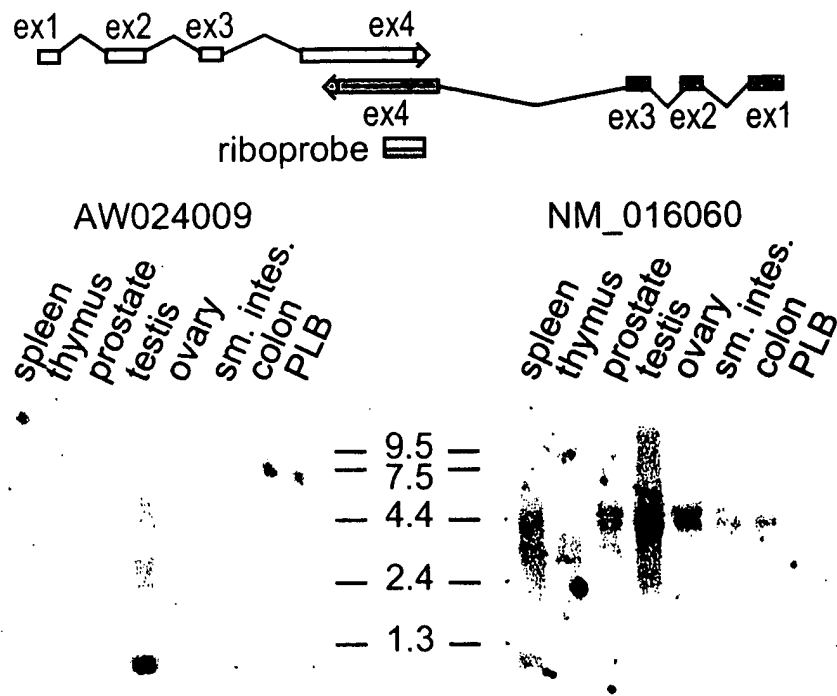


Fig. 22c

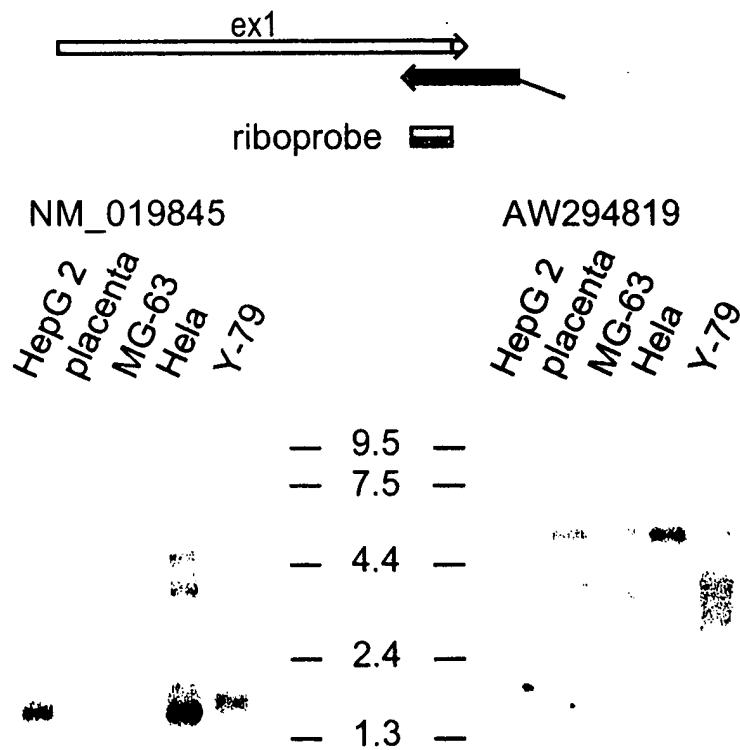


Fig. 22d

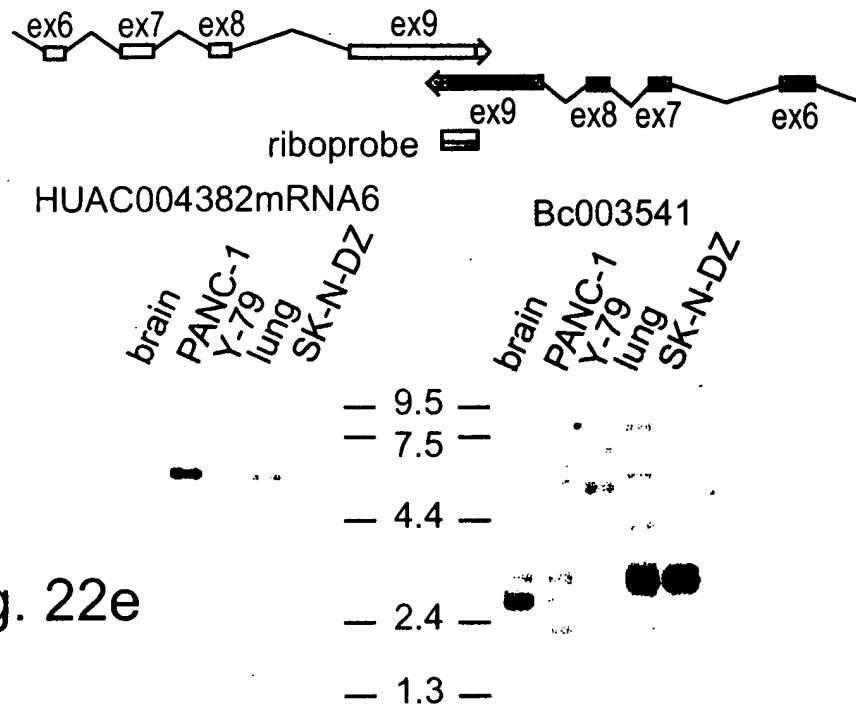


Fig. 22e

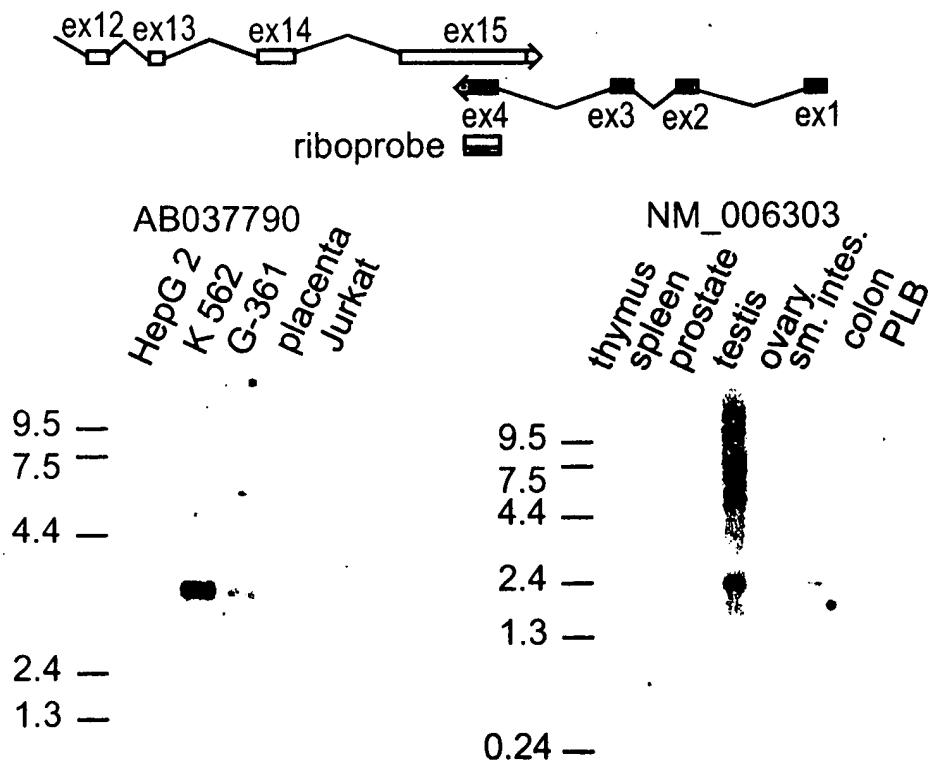
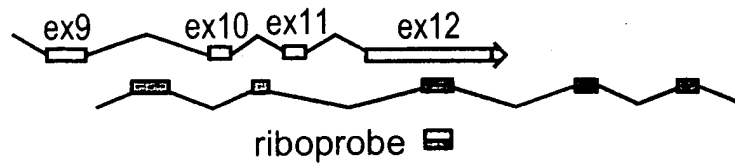


Fig. 22f



NM_014902

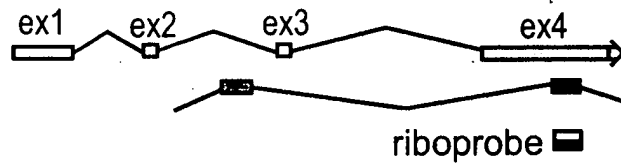
Be897625

HepG 2
testis
MCF 10
G-361
MG-63

HepG 2
testis
MCF 10
G-361
MG-63

9.5 —
7.5 —
4.4 —
2.4 —
1.3 —

Fig. 22g



NM_005667

Aa609638

lung
HepG 2
placenta
HeLa
K 562

spleen
thymus
prostate
testis
ovary
sm. intes.
colon
PLB

9.5 —
7.5 —
4.4 —
2.4 —
1.3 —

9.5 —
7.5 —
4.4 —
2.4 —
1.3 —
0.24 —

Fig. 22h

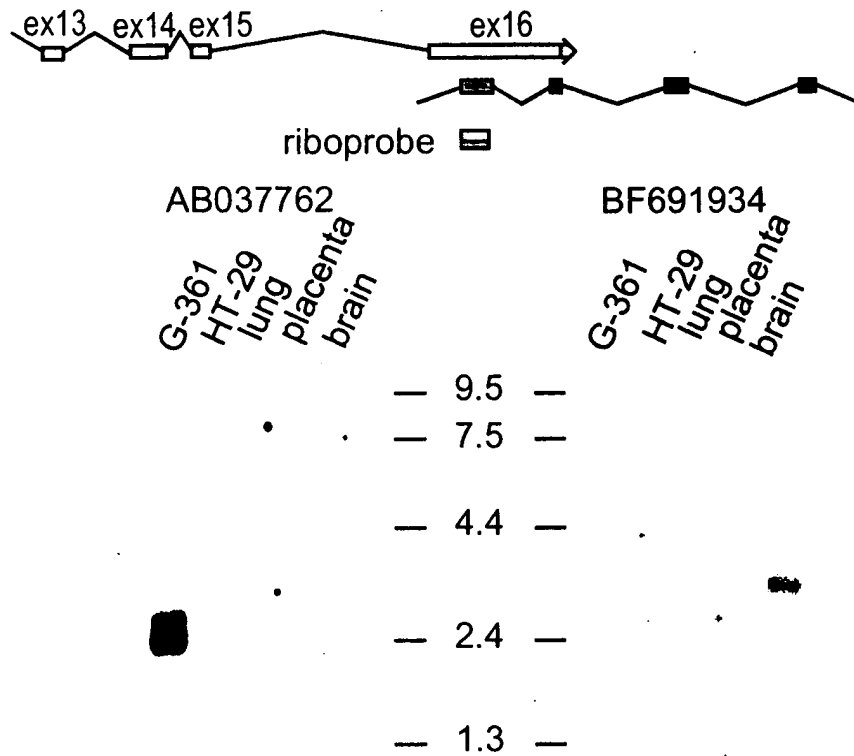


Fig. 22i

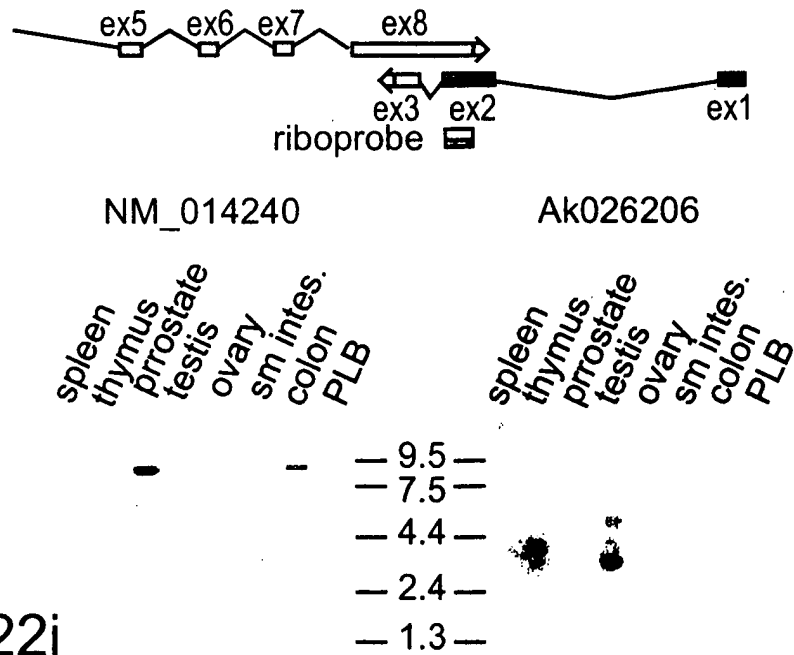


Fig. 22j

Probe	Probe pass threshold	Anti sense pair ver.	Actual pool	Virtu al pool	Y79	ES-2	HEK -293	K-562	HT-29	SK-N DZ	MG-63	SNU1	NI564	HeLa	MCF10								
			28	52b	29	53	30b	78	31b	55b	33b	56	34b	89	35	58	36b	79	45	63	46b	64	50b
Actin luM	+	+ CTRL	0.56	0.71	0.89	0.89	0.62	0.95	0.71	0.73	0.41	0.47	0.66	0.62	0.78	0.8	1.01	1.12	2.24	2.6	0.91	1.09	0.92
GAPDH 30um	+	+ CTRL	0.97	0.96	0.82	0.78	0.53	0.51	0.97	0.86	0.47	0.52	0.87	0.73	1.03	0.8	1.88	1.65	1.28	0.87	1.38	1.33	0.84
HUMM HBA123	+	+ CTRL	1.43	1.42	0.85	0.78	1.16	1.06	1.26	1.02	0.82	0.88	1.1	0.95	1.95	1.28	0.88	0.75	0.91	0.54	1.37	1.25	1.14
Known 10AC	+	VER.	1.82	1.49	0.65	0.54	0.94	0.91	1.32	0.82	1.03	0.66	1.61	1.57	2.34	2.37	0.8	0.65	1.06	0.55	1.15	0.9	0.79
Known 10C	+	VER.	1.04	1.27	0.78	0.84	-1	1.51	1	-1	1	1.16	-1	1.78	1	1	0.74	1.01	0.79	1	1.49	1	0.58
Known 9AC	+	VER.	2	1.84	0.81	0.69	1.07	1.26	1.56	1.14	1.11	0.85	1.55	1.27	1.14	0.83	0.76	0.63	0.89	0.49	1.28	1.25	0.77
260AC	+		1.34	1.95	0.35	1	0.9	1.79	0.84	1	0.71	1.42	0.87	1.35	0.47	1	0.59	1.3	0.78	1	1.14	1	1.31
260C	-		1	1	0.93	1	-1	1.8	-1	-1	-1	1	1	-1	-1	-1	1	1	1	1	1	1	1
261AC	+	VER.	-1	1	0.65	0.53	1.34	1.22	1.76	1.09	1	0.69	1.65	1	1.04	0.71	0.86	0.64	1.32	0.39	2.09	1.01	1
72C	-	IND. VER.	1.28	1.15	0.46	0.78	1	1	-1	1	1	2.32	1.14	1.78	-1	-1	1	1	1	1	1	1	0.6

Fig. 23

	Lung		Testis		Placenta		DU 145		T24		G-361		Jurkat		HepG2		MCF7		PANC-1	H1299	Brain	
	70	74	71	75	72b	76	82	83	69	51	80	60	88	66	86b	67b	85	84				
68b																						
	0.98	1.34	1.37	0.45	0.55	1.51	1	1.19	1.1	1.52	0.94	1.41	1.36	1.33	1	0.34	0.55	1.32	1.13	0.86	0.9	1.16
	0.82	0.37	0.31	0.36	0.28	0.55	0.44	0.93	0.69	0.96	0.57	1.4	1.19	1.36	0.91	0.85	0.81	0.78	0.5	0.62	2.16	0.86
	1.04	1.44	0.9	1.16	0.71	1.19	0.9	1.12	0.82	0.97	0.55	0.95	0.71	1.13	0.62	1.37	1.32	1.31	0.83	1.13	1.65	0.66
	0.78	1.74	1.22	1.87	1.34	1.42	1.13	1.17	0.95	0.77	0.35	1.42	1	0.94	0.84	1.12	1.16	0.96	0.59	1.76	1.48	1.43
	1.61	1.59	1	0.89	1	1	1	1	1	0.57	1	1	1	1	0.85	1.3	1	1	1.65	1.55	1	1
	0.84	2.11	1.27	1.54	1.16	1.04	0.67	1.05	0.9	0.86	0.52	1.38	0.79	1.34	1.1	1.03	1.09	1.48	1.11	1.52	1.29	1.2
	3.64	1.01	2.58	1.43	3.45	1.52	3.07	1.02	1	0.56	0.72	0.84	0.5	1	1	0.84	1.55	1.1	1.09	1	1.04	4.89
	1	1	1	1	1	1	2.46	1	-1	1	-1	1	1	1	1	1	1.68	1	1	-1	-1	1
	1	1	1	2.17	1.31	1.39	0.83	1.36	0.72	0.96	0.52	1	0.58	1.95	1	1.5	0.94	1.86	1	-1	-1	1
	1.05	1	1	-1	1	1	1	1.02	1	1	0.99	1	1	-1	1.83	1	1	1	1	1	1	1

Fig. 23 (Cont.)